

Exhibit G

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA**

NORFOLK SOUTHERN RAILWAY COMPANY	:	CIVIL ACTION
Three Commercial Place	:	
Norfolk, VA 23510	:	
	:	NO. 05-CV-3419-BMS
Plaintiff,	:	
	:	
v.	:	
	:	
BASELL USA INC.	:	
912 Appleton Road	:	
Elkton, MD 21921	:	
	:	
Defendant.	:	

**PLAINTIFF'S MOTION IN LIMINE TO EXCLUDE EXPERT TESTIMONY
OF THOMAS D. CROWLEY**

Plaintiff and counterclaim defendant, Norfolk Southern Railway Company (“NS”), hereby moves this Court *in limine* for an Order excluding the expert testimony of Thomas D. Crowley, who has been retained by defendant and counterclaim plaintiff, Basell USA, Inc. (“Basell”) to testify as an expert in this case on the issue of Norfolk Southern’s damages as well as Basell’s counterclaim damages. Mr. Crowley’s “Report”, submitted pursuant to Fed. R. Civ. P. 26(b)(4) reveals that all he has done in connection with this case is perform various arithmetic calculations and then reported on the results of those calculations. He has not rendered an “opinion.” He certainly has not reached any conclusions which require scientific, technical or specialized knowledge. Accordingly, this Court should preclude Mr. Crowley from testifying as an expert at trial.

GENERAL BACKGROUND

NS' breach of contract claim in this action arises from freight transportation business which Basell had promised to NS for a five-year contract term but, after three years, began giving that business (and continues to give it) to a competitor of NS. NS expected to generate revenue under the contract by charging Basell for each rail car load of Basell's product which NS handled. As a result of Basell's diversion of its business to NS' competitor, NS has lost substantial revenue, which has resulted in lost profits.

In order to determine the profits which NS has lost since Basell's breach, the following information is required:

1. The number of car loads to which NS was entitled, but which have been diverted or which will be diverted to its competitor;
2. The per-car-load rate which NS would have charged Basell for each such car load; and
3. NS' costs in transporting each such car load.

The calculation required to determine lost profits with the above information is straightforward: multiply Item 1 by Item 2; then multiply Item 1 by Item 3; then find the difference between the two products.

Basell has produced information in this action concerning the number of car loads which it tendered to NS' competitor since February 1, 2005 (Item 1), which is the date on which NS alleges that Basell breached the contract at issue, and through January 31, 2006. The per-car-load rate for each such shipment (Item 2) is contained in or could be derived from rate contracts to which both NS and Basell are or were parties. NS' costs

can be determined by utilizing the Surface Transportation Board's 2004 Uniform Railroad Costing System ("URCS") procedures for NS.

In order to determine the profits that NS will lose through the end of the contract term, which is May 31, 2007, the following information is required:

- 1 A forecast of the average number of car loads to which NS would have been entitled and but which would be diverted to its competitor during that time period;
- 2 The per-car-load rate which NS would have charged Basell for each such car load; and
- 3 NS' predicted costs in transporting each such car load.

The calculation required to determine lost profits with the above information is straightforward: multiply Item 1 by Item 2; then multiply Item 1 by Item 3; then find the difference between the two products.

In the "Report", prepared and submitted by Mr. Crowley (a copy of which is attached hereto as Exhibit), Mr. Crowley considered all of the items outlined above. He performed the calculations described above. He added the past lost profits to future lost profits to obtain a total for NS damages claims.

Mr. Crowley has also determined Basell's alleged counterclaim damages. Basell alleges that it has paid NS more than it should have for transportation services under an alleged contract. The calculation of Basell's alleged counterclaim damages is very similar to the calculation required to obtain NS' damages. First, Basell must determine how many car loads are at issue. Then, that number is multiplied first by the rate at which Basell was charged and then by the rate which Basell contends it should have been

charged. Basell's alleged damages can then be determined by finding the difference of the two products. Mr. Crowley's calculation of Basell's alleged counterclaim damages also appear in his Report.

ARGUMENT

Federal Rule of Evidence 702 allows litigants to present expert testimony at trial if “[i]f scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, . . . ”. Fed. R. Evid. 702. The United States Supreme Court has said that

...the general rule is . . . **that expert testimony not only is unnecessary but indeed may properly be excluded in the discretion of the trial judge** “if all the primary facts can be accurately and intelligibly described to the jury, and if they, as men of common understanding, are as capable of comprehending the primary facts and of drawing correct conclusions from them as are witnesses possessed of special or peculiar training, experience, or observation in respect of the subject under investigation . . . ”

Salem v. United States Lines Co, 370 U.S. 31, 35, 82 S. Ct. 1119, 1123 (1962)(emphasis added), quoting *United States Smelting Co. v Parry*, 166 F. 407 411, 415 (8th Cir. 1909); see also *Otti et al v Ford Motor Co , et al*, 234 F.3d 136, 159 (3d. Cir. 2000) and *Wilburn v. Marittrans GP Inc*, 139 F.3d 350, 359 (3d. Cir. 1998). The question before this Court is whether the rather straightforward calculations performed by Mr. Crowley required “special or peculiar training or experience or observation” beyond that of “men of common understanding.”

NS does not dispute that Mr. Crowley possesses expertise in matters which pertain to transportation in general and rail transportation contracts in particular. See, e.g., the Report at 1. It is patently obvious that Mr. Crowley possesses significant specialized knowledge in the field of transportation. It is equally obvious that anyone

with (1) the ability to create and manipulate a spreadsheet (or use a calculator) and (2) access to the relevant information exchanged by the parties to this lawsuit could have done the calculations performed by Mr. Crowley.

NS would initially note that nowhere in his Report does Mr. Crowley render an “opinion”, which is usually what testifying experts do. Instead, Mr. Crowley merely reports on the results of the calculations he has performed. *See* section V., CONCLUSIONS, at 35 of Exhibit A. Presumably, Mr. Crowley obtained results which were within a reasonable degree of arithmetic certainty. Since it was basic arithmetic that he was performing, it should also be presumed that his results are arithmetically exact. Of course the ability to perform such calculations accurately is certainly well within the ability of “men of common understanding” and certainly does not require special expertise or training.

In order to determine the number of railcar loads which are at issue, Mr. Crowley used traffic information provided to him by Basell. To determine the rates to apply to those shipments, Mr. Crowley used, for the most part, actual or historic contract rates for those particular shipments.¹ Mr. Crowley relied on URCS procedures established by the STB to determine NS’ costs for each shipment.² Mr. Crowley also had to fine-tune his calculations based on a “95% Rule” and a “100-Mile Rule”³. Mr. Crowley’s application of those two “rules” to his calculations can be seen at Exhibits 5 and 6 to the Report and the notes thereto. Again, all that it appears that Mr. Crowley has done is to take

¹ Exhibit 3 to The Report, at § 6. With respect to his calculation of Basell’s counterclaim damages, which involved application of tariff rates to the shipments, Mr. Crowley relied on tariffs published by the various railroads involved. Exhibit 3 to The Report, at Exhibit 3, §§ 7, 8, and 9.

² The Report at 13

³ The Report at 15 – 16. The 95% Rule and the 100-Mile Rule are both found in the contract which is the subject of this action.

information provided to him by Basell and perform very basic arithmetic to come up with his final numbers.

Clearly, all that was left to do after obtaining the above information was simply to “crunch the numbers,” which is what Mr. Crowley did. What is not apparent, however, is the extent to which Mr. Crowley brought any special skill, training, or expertise to this particular exercise, if any. It certainly does not appear that his “thorough understanding of rail market rate levels, rail rate adjustment procedures, railroad service commitments, shipper volume commitments, shipper rail equipment commitments, and the economic and operational impacts of these and other contract terms and conditions” has any bearing on the calculations he performed on Basell’s behalf. *See The Report at 1.*

CONCLUSION

The figures which Mr. Crowley obtained as a result of his calculations may very well be an accurate reflection of NS' damages and Basell's counterclaim damages. If that is so, however, it will not be because of any special expertise which Mr. Crowley brought to this task. If his numbers are accurate, it will be because he "did the math" correctly or was able to create a spreadsheet to do the math. Clearly, the ability to perform basic arithmetic or create spreadsheets does not fall within "scientific, technical, or other specialized knowledge" contemplated by Fed. R. 702. This Court should not allow Basell to present Mr. Crowley as an "expert" on damages in this case. He simply brings no "expertise" to the task at hand.

Respectfully submitted,

JANSSEN & KEENAN P.C.

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May 8, 2006

Attorneys for Plaintiff
Norfolk Southern Railway Company

CERTIFICATE OF SERVICE

I, Charles L. Howard, hereby certify that a true and correct copy of the foregoing

PLAINTIFF'S MOTION *IN LIMINE* TO EXCLUDE EXPERT TESTIMONY

OF THOMAS D. CROWLEY was served this 8th day of May, 2006, *via* Electronic
Case Filing on the following counsel for Basell USA, Inc :

Conrad O. Kattner, Esquire
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/s/Charles L. Howard

EXHIBIT "A"

NORFOLK SOUTHERN RAILROAD COMPANY

v.

BASELL USA, INC.

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA**

CIVIL ACTION NO. 05-CV-3419-BMS

REPORT

Contains Confidential Information

by

Thomas D. Crowley
President

**L. E. PEABODY & ASSOCIATES, INC.
ECONOMIC CONSULTANTS**

Due Date: April 17, 2006

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I. INTRODUCTION

My name is Thomas D. Crowley. This Report is submitted as part of my engagement on behalf of Basell USA, Inc. (“Basell”) in the matter of the dispute between Basell and Norfolk Southern Railway Company (“NS”).

I am an economist and the President of the economic consulting firm of L. E. Peabody & Associates, Inc., a firm specializing in solving economic, marketing, transportation and fuel supply problems. I have spent my entire consulting career of over thirty-five (35) years evaluating railroad operations, fuel supply operations, capacity and equipment planning issues, and the costs and prices associated with those issues and operations. My assignments in these matters were commissioned by railroads, producers, and shippers of different commodities.

Since the passage of the *Staggers Rail Act of 1980* (“*Staggers Act*”), which allowed railroads and shippers to enter into rail transportation contracts, I have assisted numerous shippers in negotiating and evaluating the economic and operational aspects of rail transportation contracts. As further explained in Exhibit No. 1 to this Report, my familiarity with rail transportation agreements includes a thorough understanding of rail market rate levels, rail rate adjustment procedures, railroad service commitments, shipper volume commitments, shipper rail equipment commitments, and the economic and operational impacts of these and other contract terms and conditions. I am familiar with rail transportation contracts for the transportation of all commodities, and I have assisted numerous shippers throughout the nation in the planning, negotiation, and development of such contracts.

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Attachment A to Exhibit No. 1 identifies the testimony that I have presented before courts, regulatory bodies and arbitration panels during the last four (4) years. My publications over the last ten (10) years are listed on Attachment B to Exhibit No. 1. The basis for L. E. Peabody & Associates, Inc.'s compensation in this proceeding is shown in Attachment C to Exhibit No. 1.

I have been asked by Counsel for Basell to evaluate and respond to NS's claimed damages calculations. NS's theory is that Basell breached an alleged contract and that Basell owes NS damages from February 2005 through the term of the alleged contract in May 2007.

I have also been asked by Counsel for Basell to calculate damages based on the assumption that a contract between NS and Basell exists that covers both truck transfer ("TBT") and rail-direct traffic from the West Lake Charles, Bayport and Canadian origins and that NS breached that contract. Specifically, I have been asked by Counsel to evaluate three distinct time periods, i.e., February 2005 through January 2006 (actual data), February 2006 through December 2006 (end of the current CSX Transportation, Inc. ("CSXT") contract) and January 2007 through May 2007 (end of alleged NS contract). For each of these time periods, damages were calculated separately for originations from West Lake Charles, Bayport and Canadian origins (Sarnia and Varennes). I was also asked to assume liquidated damages apply and calculated Basell damages accordingly.

The data and information that I considered to develop my findings included in this Report are summarized in Exhibit No. 2 to this Report.

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A summary of my opinions, to date, a description and quantification of the analyses I developed, and the data and information I reviewed in the formulation of my opinions are discussed in the balance of this Report and accompanying Exhibits under the following topical headings:

II. Summary and Findings

III. Basell's Damages Calculations

IV. Evaluation of NS's Claimed Damages Calculations

V. Conclusions

II. SUMMARY AND FINDINGS

Based on my review and analysis of the transportation related data and information associated with this proceeding, I have reached the following conclusions:

A. BASELL'S DAMAGES CALCULATIONS

1. The study time period covers February 1, 2005 through May 31, 2007 and includes shipments originating at West Lake Charles, LA, Bayport, TX and Canada (Sarnia, ON and Varennes, PQ).
2. Basell's damages were evaluated on two bases. First, damages were calculated for shipments NS lost to CSXT assuming NS proves that a contract between NS and Basell exists that covers West Lake Charles rail direct and TBT traffic, as well as Bayport and Canadian origins TBT traffic only. Also, damages were calculated for shipments retained by NS, assuming that a contract between NS and Basell exists that covers TBT and rail direct traffic from West Lake Charles, Bayport and Canadian origins and that NS breached that contract.
3. For shipments NS lost to CSXT, I calculated damages on several bases. I calculated damages to equal the contract rate that NS would have charged Basell if a contract existed minus NS's variable cost of providing service. For shipments retained by NS, assuming that a contract between NS and Basell exists that covers all TBT and rail direct traffic from West Lake Charles, Bayport and Canadian origins and that NS breached that contract, I calculated damages to equal the tariff rate NS charges Basell minus the contract rate that NS would have charged Basell if a contract existed. I also calculated liquidated damages as requested by Counsel, as noted below.
4. In calculating Basell's damages, I assumed that NS did not invest any monies since 2003 to accommodate the Basell traffic. I also include the impact of the "95% Rule" and the "100-Mile Rule" in my damages calculations. I am not offering a legal opinion concerning the 95% Rule and 100-Mile Rule, as a legal opinion is beyond the scope of my work, but I have assumed that these items are applicable.
5. My calculation of NS damages based on my understanding of NS's theory are summarized in Table 1 below. Specifically, my understanding of NS's theory is that only NS shipments NS lost to CSXT are to be included. Further, these lost shipments included both TBT and rail direct shipments from West Lake Charles but only TBT shipments from Bayport and Canadian origins.

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Table 1
Summary of NS Damages
Based On NS's Theory of Damages

Origin (1)	Amount (2)
1. West Lake Charles	\$456,770
2. Bayport	\$363,615
3. Canadian	<u>\$109,139</u>
4. Total	\$929,524

Source: Exhibit No. 4.

My application of NS's damages theory, results in damages totaling \$929,524.

6. The results of my damages calculations assuming that a contract exists between Basell and NS that covers all TBT and rail direct traffic from all origins, separately for West Lake Charles shipments and all other shipments, are summarized in Table 2 below.

Table 2
Summary Of Basell Damages Calculations

Item (1)	West Lake Charles, LA (2)	Bayport, TX (3)	Canadian (4)	Total (5)
1. NS Shipments Lost to CSXT	\$456,770	\$1,463,171	\$232,143	\$2,152,084
2. Shipments Retained By NS	<u>\$0</u>	<u>(\$3,285,308)</u>	<u>(\$4,130,420)</u>	<u>(\$7,415,728)</u>
3. Total Net Damages	\$456,770	(\$1,822,137)	(\$3,898,277)	(\$5,263,644)

Source: Exhibit No. 4 and Exhibit No. 8.

Based on the damages calculations summarized in Table 2 above, Basell owes NS \$456,770 for West Lake Charles shipments that NS lost to CSXT. This same analysis shows that NS owes Basell \$5,720,414 for all other shipments or a net of \$5,263,644 that NS owes Basell in damages.

7. I have assumed that damages are payable through May 2007 but should caveat these damages amounts to reflect the possibility that the damages amounts might be less if Basell increases the volume of traffic to NS prior to May 31, 2007.
8. Counsel requested that I calculate damages a second time assuming liquidated damages apply. Assuming liquidated damages of \$500 per car, total liquidated damages for West Lake Charles originations equals \$148,500 and for all shipments lost to CSXT equals \$783,500. If \$1,000 per car is assumed to be the liquidated damages value, liquidated damages equal \$297,000 for West Lake Charles shipments lost to CSXT and \$1,567,000 for all shipments lost to CSXT.

B. NS's DAMAGES CALCULATIONS

1. On April 14, 2006, NS provided limited computer versions of their two damages calculations. Under NS's contract damages calculations, NS identified lost profits totaling \$2,487,535. Under NS's tariff damages calculations, NS identified lost profits totaling \$7,556,450.
2. NS calculated both their tariff damages and contract damages for the same group of issue traffic.
3. The sources and calculations supporting all of NS's rate, revenue and division of revenue data for both NS's tariff damages calculations and their contract damages calculations were not provided by NS.
4. NS appears to have developed different costs for their tariff damages calculations than for their contract damages calculations. My statement is based on the way NS referred to their costs in their two analyses, i.e., in their tariff damages, NS referred to costs as "URCS Costs" and in their contract damages, NS referred to costs as "CAP Costs" or "I/A Costs".
5. While I understand from Counsel that NS previously asserted that the 95% Rule and the 100-Mile Rule apply, NS did not include the impact of these rules in their calculations.

6. Both of NS's damages calculations included an ROI component totaling \$559,429. NS's ROI calculation represents investments in three TBT terminal facilities (and one TBT terminal facility that does not exist) prior to 2003. As I understand the incremental investment damages calculation, it is to recover incremental investment expended by NS in TBT terminals to accommodate the Basell traffic. As the alleged contract began in 2002 and NS has made no investment in these TBT facilities since 2003,^{1/} there are no ROI damages to recover.

^{1/} Actually the last time NS invested in any of these TBT facilities was 1998.

III. BASELL'S DAMAGES CALCULATIONS

I calculated damages assuming NS can prove there is a contract between NS and Basell covering rail direct and TBT traffic originating at West Lake Charles and TBT traffic at Bayport and the Canadian origins. I also calculated damages assuming that there is a contract between NS and Basell covering both rail direct and TBT traffic from all three origins and that NS breached that contract. My evaluation process began with an identification of the involved carload traffic and associated rate levels (either contract or tariff), an estimation of the costs incurred by NS to handle the issue traffic plus the consideration of the 95 percent rule, the 100-mile rule and incremental investment. The result of my analyses are the damages owed.

The remainder of this section of my Report discusses each of the steps I followed to develop my damages calculations. The results of my research are summarized under the following topical headings:

- A. Issue Traffic
- B. Rates/Revenues
- C. Development Of NS Costs
- D. Incremental Investment
- E. 95% Rule
- F. 100-Mile Rule
- G. Expansion Factors

H. Damages

I. Liquidated Damages

A. ISSUE TRAFFIC

The study time period began February 1, 2005 which is the starting date for the alleged NS/Basell contract and ended May 31, 2007 which is the ending date of the alleged NS/Basell contract. Actual carload shipment data was identified for the February 2005 through January 2006 time period. For the remaining study time period (February 2006 through May 2007), carload shipments were estimated based on the procedures outlined later in this section of my Report.

The actual carload shipment data was grouped by carload shipments lost to CSXT and carload shipments retained by NS. For each of these two groups, the carload shipments were separated between origination locations, i.e., originations at West Lake Charles, LA, originations at Bayport, TX or originations at Canadian locations (either Sarnia, ON and Varennes, PQ). For each of these three origination locations, the carload shipments were separated between truck transfer shipments and rail direct shipment. A truck transfer shipment is any rail shipment that was destined to a city where NS had a TBT terminal. A rail direct shipment is any shipment that moved via rail from origin to destination.

Finally, the actual carload shipment data was adjusted to exclude all shipments that exceeded the 100-Mile Rule and the 95% Rule. The 100-Mile Rule and the 95% Rule are explained in a later section of this Report.

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The study assumptions relied upon to develop the traffic included in Basell's damage calculations are further explained in Exhibit No. 3 to this Report. The resulting number of carloads evaluated and the number of carloads included in the Basell's damages calculations are shown in Columns (2), (3) and (4) respectively on Exhibit No. 4 to this Report.

1. Routing

It was necessary to determine the NS routing of shipments lost to CSXT as the routing of the actual movements reflected CSXT routes. Assumption No. 4 on Exhibit No. 3 to this Report explains the steps I followed to determine the NS routings that I used to calculate damages associated with shipments lost to CSXT. Stated differently, I relied on the actual routing for identical historical movements where possible and I relied on similar movements where identical movements were not available.

For example, for TBT shipments from Bayport, TX to Columbus, OH, I searched the universe of Basell shipments and found 2005 shipments that moved from Bayport over BNSF to Chicago and then over NS to Columbus. Accordingly, I used Chicago to Columbus as the route over which NS would have moved shipments between Bayport and Columbus that were lost to CSXT.

For movements where I could not find an actual movement between an origin/destination pair in which NS historically participated, I expanded my search to include movements from that specific origin to the involved shipment's destination state. For example, for TBT movements from Bayport to Atlanta, I reviewed all shipments from Bayport to Georgia in which NS historically participated and determined that the majority of shipments were interchanged to NS at Memphis, TN.

Accordingly, I used Memphis to Atlanta as the route over which NS would have moved shipments between Bayport and Atlanta that were lost to CSXT.

B. RATES/REVENUES

Rates were identified for each individual shipment evaluated. This analysis evaluated the rate levels for shipments NS lost to CSXT and the rate levels for shipments retained by NS.

1. Shipments NS Lost to CSXT

Shipments that NS lost to CSXT are by definition competitive shipments. For these shipments, if NS damages are calculated as lost profits, NS contract rates had to be calculated since NS lost profits represent the difference between the contract rate and NS's cost of providing service.

NS contract rates on a shipment-by-shipment basis were calculated based on the following three criteria:

- a. For shipments made by NS from West Lake Charles, the contract rate equals the rates from Contract BNSF 305125 and are calculated as the total freight less the BNSF rate provided by Basell;
- b. For all non-West Lake Charles origins where a residual NS contract rate for a specific origin to destination movement was available from historical NS shipment data, that rate was used (See Exhibit No. 3 for details); and
- c. For all non-West Lake Charles origins where a residual NS rate was not available from historical NS shipment data, NS contract rates were estimated by the steps outlined in Exhibit No. 3, Part 6.c. to this Report.

NS contract rates were not adjusted for fuel surcharges as the alleged NS contract does not include a fuel surcharge. Also, NS contract rates were not adjusted for the Rail Cost Adjustment

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Factor (“RCAF”) but rather represent rates paid. I did not adjust NS contract rates for the RCAF because expected increases in NS’s costs would also have to be calculated.

2. Shipments Retained By NS

Shipments retained by NS are by definition shipments captive to NS, i.e., no competition exists to transport these shipments to destination. For these shipments, NS charged Basell tariff rates. If a NS/Basell contract exists covering these shipments, Basell would pay contract rates for these shipments. Therefore, both the tariff rate paid and the contract rate that would be paid have to be identified and the difference represents the amount of overpayment. If the tariff rates are higher than the contract rates, NS owes Basell damages. Conversely, if the contract rates are higher than the tariff rates, Basell owes NS damages.

The identification of the contract rates used in this portion of my damages calculations followed the procedures outlined above.

NS tariff rates were identified for historical shipments separately from UP, BNSF and CN served origins. The specific tariffs used for this exercise are identified in Exhibit No. 3 to this Report. NS tariff rates were increased for fuel surcharges (as required by the tariff) but no adjustment was made to recognize changes in the RCAF. By not including the potential impact of the RCAF on tariff rates, the calculation of damages owed to Basell are probably understated. I also did not estimate any other tariff increases that NS might impose between now and May 31, 2007.

C. DEVELOPMENT OF NS COSTS

For the shipments lost to CSXT, NS's variable cost of providing service had to be calculated in order to calculate NS's lost profits for each shipment.

Variable costs are those costs which vary with changes in output. These costs move in direct proportion to an increase or decrease in traffic. Variable costs included in this analysis are of a long-run nature as developed following the Surface Transportation Board's ("STB") 2004 Uniform Railroad Costing System ("URCS") procedures for NS. This cost level includes: 1) variable operating expenses; 2) depreciation, rents and leases; and 3) return on investment in both road and equipment property. For variable costs, return is calculated at the railroads' current cost of capital level as determined by the STB in its annual cost of capital proceedings (i.e., 14.47 percent before taxes).^{2/}

For each shipment, the following traffic and operating factors were developed:

1. Line-haul miles;
2. Net lading per car;
3. Shipment size;
4. Car Type;
5. Commodity; and
6. Car ownership.

^{2/} Ex Parte No. 558 (sub-No. 8), Railroad Cost of Capital - 2004, (i.e., 10.1 percent after taxes or 14.47 percent before taxes utilizing the statutory tax rate).

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These factors were combined with NS's 2004 URCS unit costs in the STB's cost program (sometimes referred to as the URCS Phase III program) resulting in NS's variable cost per shipment. A demonstration of my calculation of NS's variable costs using a West Lake Charles to Winchester, VA shipment as an example is included as Exhibit No. 6 to this Report.

D. INCREMENTAL INVESTMENT

NS's calculation of damages provided on April 14, 2006 included a separate line item with an estimated amount of \$559,429 for return on investment ("ROI") covering the February 2005 through May 2007 time period. As I demonstrate in the next section of my Report, NS's ROI calculation represents investments in three TBT terminal facilities (and one TBT terminal facility that does not exist) prior to 2003. As I understand the incremental investment damage calculation, it is to recover incremental investment expended by NS in TBT terminals to accommodate the Basell traffic. As the alleged contract began in 2002 and NS has made no investment in these TBT facilities since 1998, there are no damages to recover.

What is clear is that an NS study provided in February 2006^{3/} concluded that NS made no incremental investment in TBT facilities since 1998.

For purposes of my damages calculations, I have included no return on unrecovered incremental investment in TBT facilities because none exists.

^{3/} NS3372 through NS3375.

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E. 95% RULE

Counsel informed me that NS is claiming that the alleged contract is based on two separate commitments by Basell. First, in addition to the 100-Mile Rule, Basell is allegedly committed to ship 95% of all TBT shipments on NS, where Basell controls the truck movements. Second, there is allegedly also a separate commitment by Basell to ship 95% of the aggregate of all the traffic from each origin to NS.

In calculating damages, I have applied both 95% Rules. The first 95% Rule involved TBT traffic only. This 95% Rule applied to all TBT shipments lost to CSXT plus all TBT shipments retained by NS. This 95% Rule was applied for each origin by adding together all TBT shipments lost to CSXT and all TBT shipments retained by NS. Five percent of the sum of these shipments were subtracted from the TBT shipments NS lost to CSXT at each origin.

The second 95% Rule involved both TBT and rail direct traffic. This 95% Rule applied to all TBT shipments and rail direct shipments. Similar calculations described above for TBT shipments were made when applying the 95% Rule to the total TBT and rail direct traffic.

I have included as Exhibit No. 5 to this Report a demonstration of my application of the 95% Rule using West Lake Charles to Atlanta shipments as an example.

F. 100-MILE RULE

Counsel informed me that the alleged contract contains a “100-Mile Rule”. The 100-Mile Rule means that NS has the right to handle TBT traffic only to destinations that are within 100 miles of

an NS TBT terminal, where Basell controls the truck movements. Stated differently, any shipment that moves more than 100 miles from a NS TBT terminal does not have to move via NS.

Basell conducted a study of truckloads moving from NS TBT terminals over the February 2005 through March 2006 time period. For each truckload, the miles from the TBT terminal to destination were calculated. The percentage of truckloads moving less than 100 miles to destination were calculated. A summary of these percentage calculations is included as Exhibit No. 7 to this Report.

These percentages were used to adjust the number of shipments and resulting damages associated with NS movements lost to CSX. An example of my application of the 100-Mile Rule using West Lake Charles to Atlanta shipments is included as Exhibit No. 5 to this Report.

G. EXPANSION FACTORS

As noted above, actual shipment data is available for the February 1, 2005 through January 31, 2006 time period. As the alleged NS contract expires May 31, 2007, it was necessary to estimate shipment levels and resulting damages that would likely be experienced over the February 1, 2006 through May 31, 2007 time period.

The technique I developed to estimate shipment levels and resulting damages for the February 1, 2006 through May 31, 2007 time period is summarized in Exhibit No. 8 to this Report. For shipments NS lost to CSXT, I calculated expansion factors separately for West Lake Charles, Bayport and Canadian originations. The expansion factor equals the average actual monthly shipments that originated during the April 2005 through January 2006 time period. These average

monthly shipments were applied to the average damages per carload for the same April 2005 through January 2006 time period resulting in a forecast of damages for each month from February 2006 through May 2007. A summary of my expansion factor calculations is included on page 1 of Exhibit No.8 to this Report.

A similar set of expansion factors were developed for traffic retained by NS and these expansion factor calculations are included on page 2 of Exhibit No. 8 to this Report.

H. DAMAGES

Utilizing the procedures described above, I calculated damages associated with shipments NS lost to CSXT and associated with shipments retained by NS. Table 1 below summarizes these damages for the three time periods evaluated i.e., February 2005 through January 2006 (actual data), February 2006 through December 2006 (end of the current CSXT contract) and January 2007 through May 2007 (end of alleged NS contract). For each of these time periods, Table 3 below summarizes the damages calculated for shipments from West Lake Charles, Bayport and Canadian origins (Sarnia and Varennes).

Table 3
Summary Of Basell Damages Calculations

<u>Time Period</u>	<u>West Lake Charles, LA</u>	<u>Bayport, TX</u>	<u>Canadian</u>	<u>Total</u>
<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>
<u>NS Shipments Lost to CSXT</u>				
1. 2/05 through 1/06	\$185,730	\$604,466	\$87,374	\$877,571
2. 2/06 through 12/06	\$186,340	\$590,359	\$99,528	\$876,227
3. 1/07 through 5/07	<u>\$84,700</u>	<u>\$268,345</u>	<u>\$45,240</u>	<u>\$398,285</u>
4. Sub-total	\$456,770	\$1,463,170	\$232,142	\$2,152,083
<u>Shipments Retained By NS</u>				
5. 2/05 through 1/06	\$0	(\$1,400,875)	(\$1,558,916)	(\$2,959,791)
6. 2/06 through 12/06	\$0	(\$1,295,547)	(\$1,767,909)	(\$3,063,456)
7. 1/07 through 5/07	<u>\$0</u>	<u>(\$588,885)</u>	<u>(\$803,595)</u>	<u>(\$1,392,480)</u>
8. Sub-total	\$0	(\$3,285,307)	(\$4,130,420)	(\$7,415,727)
<u>Total Damages</u>				
9. 2/05 through 1/06	\$185,730	(\$796,408)	(\$1,471,542)	(\$2,082,221)
10. 2/06 through 12/06	\$186,340	(\$705,188)	(\$1,668,381)	(\$2,187,229)
11. 1/07 through 5/07	<u>\$84,700</u>	<u>(\$320,540)</u>	<u>(\$758,355)</u>	<u>(\$994,195)</u>
12. Total	\$456,770	(\$1,822,136)	(\$3,898,278)	(\$5,263,645)

Source: Exhibit No. 4 and Exhibit No. 8.

Based on the damages calculations summarized in Table 3 above which assume that a contract exists, Basell owes NS \$2.2 million for shipments NS lost to CSXT. This same analysis shows that NS owes Basell \$7.4 million for shipments NS retained. The net result of these damages calculations is that NS owes Basell \$5.2 million in damages.

Table 3 also shows the damages calculations for each group of traffic, time period and each origin group.

I. LIQUIDATED DAMAGES

Counsel requested that I calculate damages a second time assuming liquidated damages apply.

I have been informed by Counsel that liquidated damages may equal \$500 or \$1,000 per carload for shipments NS lost to CSXT.

Table 4 below summarizes the resulting liquidated damages based on the liquidated damages per carload values supplied by Counsel.

Table 4
**Summary Of Liquidated Damages On
Shipments NS Lost to CSXT -- 2/05 through 5/07**

<u>Origin</u> (1)	<u>Assuming Liquidated Damages of \$500/car</u>		<u>Assuming Liquidated Damages of \$1,000/car</u>	
	<u>Number of Carloads</u> <u>1/</u> (2)	<u>Liquidated Damages</u> <u>2/</u> (3)	<u>Number of Carloads</u> <u>1/</u> (4)	<u>Liquidated Damages</u> <u>3/</u> (5)
1. West Lake Charles, LA	297	\$148,500	297	\$297,000
2. Bayport, TX	1,118	\$559,000	1,118	\$1,118,000
3. Canadian	<u>152</u>	<u>\$76,000</u>	<u>152</u>	<u>\$152,000</u>
4. Total	1,567	\$783,500	1,567	\$1,567,000

1/ From Exhibit No. 4, Column (7).

2/ Column (2) x \$500.

3/ Column (4) x \$1,000.

Assuming liquidated damages of \$500 per car, total liquidated damages for West Lake Charles originations for NS shipments lost to CSXT equal \$148,500 and for all NS originations lost to CSXT equal \$783,500. If \$1,000 per car is assumed to be the liquidated damages value, total liquidated damages equal \$297,000 for West Lake Charles originations and \$1,567,000 for all originations.

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IV. EVALUATION OF NS'S CLAIMED DAMAGES CALCULATIONS

On March 30, 2006, Basell's Counsel provided me with a hard-copy of NS's damages calculations based on "NS Contract Profit Loss Calculation".^{4/} On April 3, 2006, Basell's Counsel provided me with a hard-copy of NS's damage calculations based on "NS Tariff Profit Loss Calculation".^{5/} On April 6, 2006, NS provided the electronic spreadsheets which calculated both NS's damage calculations.^{6/} On April 14, 2006, NS provided updated copies of their "contract damages"^{7/} and "tariff damages"^{8/} calculations.

My review and critique of NS's damage calculations was performed at the request of Basell's Counsel and is predicated upon the assumption that NS can prove there is a contract for the Basell shipments covering West Lake Charles TBT and rail direct traffic and Bayport and Canadian TBT traffic. My review and critique is contained below under the following headings:

- A. Overview of NS's Calculations
- B. Issue Traffic
- C. Rates/Revenues
- D. Development of Costs

^{4/} See Bates Nos. NS1924 through NS1979

^{5/} See Bates Nos. NS3355 through NS3371. These documents were provided to me in a PDF file.

^{6/} Electronic files "Basell NS TBT Contract Profit Loss Highly Confidential.xls" which is the spreadsheet that contains Bates Nos. NS1924 through NS1979 and "BASELL NS TBT Tariff Profit Highly Confidential.xls" which is the spreadsheet that contains Bates Nos. NS3355 through NS3371.

^{7/} NS's updated calculation of contract damages is contained in the electronic file "Basell Feb 2005 Jan 2006 contract damage calc.xls".

^{8/} NS's updated calculation of contract damages is contained in the electronic file "Basell NS data Feb 2005 Jan 2006 tariff damage calc.xls".

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E. Incremental Investment

F. 95% Rule

G. 100-Mile Rule

H. Expansion Factors

I. Damages

As detailed below, these spreadsheets provided me with NS's answers but they did not provide all the information needed to evaluate how NS developed their answers, they did not provide all the equations and supporting data necessary to understand their calculations, they did not provide (or they deleted) the ties between their supporting data and their summaries for each of the two analyses, and they did not provide definitions and support for the symbols and abbreviations used throughout the summaries they did provide.^{2/} Therefore, my review and critique of the two damages calculations provided by NS on April 14, 2006 is limited.

**A. OVERVIEW OF
NS's CALCULATIONS**

The two damages calculations provided by NS on April 14, 2006 (without support or documentation) contain both identical and different components. In both NS analyses, the following information is identical:

1. The time period of actual shipment data evaluated (2/05 through 1/06);
2. The number of actual shipments evaluated (606);

^{2/} Each time NS provided Basell with copies of these spreadsheets, we requested the underlying and supporting data but it was never provided by NS.

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3. The forecasted number of shipments included (907); and
4. The return on investment damages.

The information in the two NS damages calculations that are different for each shipment include:

1. The rate levels;
2. The division of through rates between origin railroad and NS;
3. The costs associated with each shipment; and
4. The resulting lost profit per shipment (in some cases more than one lost profit per shipment is provided).

Stated differently, NS did not provide any of their calculations needed to understand these lost profit calculations for individual shipments or in total.

A more specific explanation of the problems with the NS data provided is contained in the remainder of this section of my Report.

B. ISSUE TRAFFIC

As noted above, NS calculated both their contract damages and tariff damages for the same group of issue traffic. Specifically, NS calculated damages for shipments originating at Basell's plants in West Lake Charles, LA, Bayport, TX and Canada^{10/} which actually moved via CSXT but which NS claims should have moved via NS, i.e., shipments NS lost to CSXT. My critique of NS's

^{10/} The Sarnia Plant in Corunna, Canada and the Varennes Plant in Varennes, Canada.

issue traffic is separated into two parts, i.e., (1) identification of issue movements and (2) routing of issue traffic.

1. Identification of Issue Movements

For the February 2005 through January 2006 time period (“actual time period”), NS included 182 shipments from West Lake Charles, 316 shipments from Bayport and 108 shipments from Canada. The shipments from West Lake Charles are divided into 42 TBT shipments^{11/} and 140 rail direct shipments. All of the shipments from Bayport and Canada are categorized as TBT shipments.^{12/} There are several problems with NS’s identification of the movements at issue, assuming there is a contract as described above.

First, while Basell and NS are in agreement that there were 108 TBT shipments lost to CSXT from the Canadian origins during the actual time period, NS failed to include 52 rail direct shipments into its calculations.

Second, NS shows 316 TBT shipments from Bayport lost to CSXT during the actual time period compared to 314 identified by Basell. The difference is two (2) shipments to Dalton, GA that NS categorized as TBT shipments even though historical data provided by Basell categorizes Dalton as a rail direct destination. Basell included two these shipments as rail direct shipments along with 403 other rail direct movements lost to CSXT that NS did not include in their calculations.

^{11/} Rail shipments that moved from origin to a NS rail-to-truck transfer facility where the commodity is transloaded from the rail car to a truck for the last leg of the movement to the ultimate destination.

^{12/} See Exhibit No. 4 to this Report.

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Third, NS shows 42 TBT shipments from West Lake Charles lost to CSXT during the actual time period compared to 32 identified by Basell. The difference is ten (10) shipments to South Plainfield, NJ that NS categorized as TBT shipments even though historical data provided by Basell categorizes South Plainfield as a rail direct destination. Basell included these shipments as rail direct shipments from West Lake Charles.

Fourth, NS shows 140 rail direct shipments from West Lake Charles lost to CSXT during the actual time period compared to 158 shipments identified by Basell. Ten of the eighteen different shipments are the South Plainfield shipments noted above. In addition, NS failed to include two shipments to Covington, GA, two shipments to Cumberland, MD and four shipments to Daylight, IN.

Fifth, NS has not included in its calculations any shipments where NS retained the movement but charged Basell the higher tariff rate rather than the lower alleged contract rate. As explained in the previous section of my Report regarding Basell's damage calculations, if there is a contract between NS and Basell covering all traffic (TBT and rail direct) from West Lake Charles, Bayport and the Canadian origins, then Basell should have been charged the lower contract rate for these movements rather than the tariff rate which resulted in overcharges to Basell.¹³⁷

¹³⁷ As seen on Exhibit No. 4, this overcharge more than offsets NS's damage claims.

2. Routing of Issue Traffic

In Section III, I describe how I determined the NS routing for shipments lost to CSXT based on the routings of actual historical Basell shipments. When reviewing NS's tariff damages calculations, I found that NS did not use the same routes that I used.^{14/}

First, NS had different destinations from the actual destination for many of the shipments. For shipments lost to CSXT destined for Atlanta from Bayport, West Lake Charles and the Canadian origins, NS shifted the destination from Atlanta to Chattanooga. For shipments lost to CSXT destined for Charlotte from these origins, NS shifted the destination from Charlotte to Winston-Salem. For shipments lost to CSXT destined for Richmond from Bayport,^{15/} NS shifted the destination from Richmond to Winston-Salem. NS did not explain why it changed the destinations for these shipments and this is especially puzzling because NS has TBT facilities at Atlanta, Charlotte and Richmond.

Second, NS has different interchanges for several shipments. For shipments from Bayport to Atlanta, Charlotte and Richmond, I used Memphis as the NS interchange location based on actual historical Basell shipments to these destinations in which NS participated. NS used New Orleans as the interchange for these shipments without explanation. For shipments from Canada to Atlanta

^{14/} NS's initial tariff damages spreadsheet provided on April 3, 2006 contained columns labeled "NSTBT" and "NS Gateway". (See, for example Bates Nos. NS3356 and NS3357). Although I have not received an explanation from NS, I believe that the "NS Gateway" is the interchange location and the "NSTBT" is the destination location determined by NS for the NS routes that would have been used if the shipment had not been lost to CSXT. In NS's tariff damages spreadsheet provided by NS on April 14, 2006, the "NSTBT" column has been eliminated. Neither of these columns appear in the contract damages spreadsheet provided by NS on April 14, 2006.

^{15/} There were no shipments from West Lake Charles or Canada to Richmond.

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and Columbus, I used Cincinnati and Detroit, respectively, based on actual historical Basell shipments to these destinations in which NS participated. NS used Toledo as the interchange for these shipments without explanation.

In summary, I used actual historical Basell shipment data to determine the routing for shipments lost to CSXT while NS changed the historically used interchange and destinations without explanation. As a result, I do not agree with NS on any of the routings for the shipments lost to CSXT. This difference in routing impacts both the revenues and costs used to calculate damages.

C. RATES/REVENUES

As noted at the beginning of this Section IV, NS calculated contract damages and tariff damages. As the revenues associated with NS's two damages calculations are different, each is discussed below.

1. Contract Damages

For each of the shipments lost to CSXT, NS's contract damages calculations contain figures that supposedly represent the revenue NS believes it lost. These figures are shown under different column headings in the Excel spreadsheet provided by NS on April 14, 2006^{16/} and are hard-coded (keyed in). NS has not provided all of the support for these figures. I cannot fully evaluate the development of these figures without additional information detailing how they were developed.

^{16/} See electronic file "Basell Feb 2005 Jan 2006 contract damage calc.xls", tab "CD004+_1105-0106", Column headings "NS Div-BNSF 305125" and "NS Div-NSSC85745".

2. Tariff Damages

For each of the shipments lost to CSXT, NS has included in its tariff damages calculations the revenue NS believes it lost. The revenue for each shipment is developed in two steps. The “FMPO tariff” rate is specified for each shipment, then is reduced by the “mpo” amount and the end result is the “z mpo tariff” amount which is used by NS as the lost revenue for the shipment.^{17/} NS’s revenue calculations are highly suspect for several reasons.

First, if indeed NS can prove there is a contract, the proper measure of lost revenue would be based on the contract rate and not a tariff rate.

Second, NS has not specified the source of its “FMPO tariff” revenues and I was unable to match them to any existing NS tariff. In the spreadsheets provided by NS on April 14, 2006, these values are hard-coded (keyed in) and NS provided no support for them.

Third, there is no explanation of the adjustment labeled as “mpo”. The formula in the Excel file provided by NS for this column shows that this adjustment equals the figure in the column labeled “URCS loaded miles”^{18/} times 0.5. As NS has provided no support for its calculations, I have no information that explains what this adjustment represents, whether or not it is applicable and, if so, how it should be calculated.

^{17/} The items in quotes are the column headings from NS’s spreadsheet “Basell NS TBT Tariff Profit Highly Confidential.xls” and can be seen in NS’s document production at Bates No. NS3357.

^{18/} See Bates No. NS3357, the column to the left of “FMPO tariff”

Fourth, I do not know if any other adjustments are included or should be included in NS's calculations, such as the NS fuel surcharge, because of the lack of supporting data provided by NS.

In summary, NS's revenue calculations appear incorrect and are unsupported.

D. DEVELOPMENT OF COSTS

In order to calculate damages, the cost of providing service for each shipment that NS theoretically lost to CSXT must be subtracted from the revenue for each shipment. As noted at the beginning of this Section IV, NS calculated contract damages and tariff damages. Without explanation, NS includes different cost values for the same shipments in each damage calculation. These different cost calculations are each described below.

1. Contract Damages

In NS's contract damages spreadsheet, there appear to be^{19/} several columns containing costs for the shipments lost to CSXT.^{20/} These numbers are hard-coded with no sources and no formulas. Without additional supporting information from NS, I have no way of analyzing or evaluating these cost figures.

^{19/} I say appear to be because the figures in these so-called cost columns are subtracted from what appears to be revenue columns to obtain the results shown in Columns labeled as "profit/car".

^{20/} See NS electronic file "Basell Feb 2005 Jan 206 contract damage calc.xls", tab "C0004+_1105-0106", Columns "Jun 04-May 05 or CAP costs", "Jun 05-Dec 05 CAP costs", "Feb-Dec 05 CAP costs" and "April-Dec 05 CAP cost-Atl; I/A Cost-Col & Char".

2. Tariff Damages

NS's tariff damages calculations contain an "URCS Cost" amount.^{21/} These numbers are hard-coded. NS has provided no explanation of this item and no support showing how it was calculated for each shipment. NS's cost calculations cannot be evaluated without additional information from NS.

E. INCREMENTAL INVESTMENT

NS included \$559,429 in both its contract damages and tariff damages calculations for return on investment ("ROI") in TBT facilities. NS developed a separate ROI amount from each of the TBT facilities - Chattanooga, TN, Winston-Salem, NC, Columbus, OH and Edgemoor, DE.^{22/}

Based on a review of NS data provided in discovery, NS's annual ROI calculations are based on a rolling 15-year total investment at each facility times a capital recovery factor divided by the number of carloads that moved through each facility each year.^{23/} NS's calculations yield an amount per car for each facility that NS applied to the actual and forecasted number of Basell carloads moving through each terminal.

Notwithstanding the fact that NS shifted carloads from one TBT terminal to another, e.g., moving Atlanta shipments to Chattanooga, there are at least three problems with NS's analysis.

^{21/} See NS's electronic spreadsheet "Basell NS data Feb 2005-Jan 2006 tariff damage calc.xls", tab "CD004+_1105-0106", Column "URCS Cost". This can also be seen on the hard-copy of NS's initial tariff damages calculation at Bates No. NS3357.

^{22/} NS changed the destination to Chattanooga for shipments destined to Atlanta and to Winston-Salem for shipments destined to Charlotte and Richmond. NS used Edgemoor as the facility for shipments to South Plainfield, NJ.

Basell shipments to South Plainfield were not identified in the Basell data as TBT shipments

^{23/} See Bates No. NS3373.

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First, NS discovery documents clearly demonstrate that there has been no investment in the Chattanooga, Winston-Salem or Columbus TBT facilities since 1998. Specifically, in a February 23, 2006 email from Mr. Gregg Oliver to Mr. Joe Osbourne, Mr. Oliver states:

“As info, we show \$0 investment dollars at Chattanooga (Jun 1998), Winston-Salem (Oct 1996) and Columbus (Oct 1996) since 2003. The date of the last capitalized investment at each location is shown in parentheses”.

As I understand the incremental investment damage calculation, it is to recover incremental investment expended by NS in TBT terminals to accommodate the Basell traffic. As the alleged contract began in 2002, and NS has made no investment in the TBT facilities since 1998, there are no damages to recover.

Second, NS included ROI damages for a non-existent TBT facility at Edgemoor, DE. In the same email referenced above, Mr. Oliver states:

“I’m not aware of a TBT facility at this location [Edgemoor] and we show \$0 investment dollars for a TBT at this location”.

In both NS’s contract damages and tariff damages calculations, NS included ROI monies for a TBT facility at Edgemoor noting “Per Mike Webb, assume the Chattanooga ROI b/c Edgemoor is ‘most similar’ to Chatt”.^{24/}

^{24/} See electronic file “Basell NS data Feb 2005-Jan 2006 tariff damage calc.xls”, tab “ROI by TBT & Month”.

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Third, NS did not provide any support for the investment, return on investment, amortization period or salvage considerations that support their calculations and I am, therefore, unable to evaluate or critique these major components of their incremental investment analyses.

F. 95% RULE

I have been informed by Basell's Counsel that if, a contract exists, Basell would be subject to volume commitments as described earlier in this Report.

Based on a review of NS's damage calculations, I cannot find where NS reflected the 95% Rule in either its contract damages or tariff damages calculations. Stated differently, NS calculated damages for 100% of the shipments lost to CSXT which results in an overstatement of damages.

G. 100-MILE RULE

I have been informed by Basell's Counsel that any shipment requiring a truck move from NS's TBT terminal to destination in excess of 100 miles is not subject to the minimum volume commitment in the contract.

Based on a review of NS's damage calculations, I cannot find where NS reflected the 100-Mile Rule in either its contract damages or tariff damages calculations. Stated differently, NS calculated damages for all of the shipments lost to CSXT and did not exclude those shipments with a truck move in excess of 100 miles from NS's TBT terminal to destination. The failure to exclude the 100-Mile Rule shipments results in an overstatement of damages.

H. EXPANSION FACTORS

The period for which NS alleges that Basell owes NS damages for shipments lost to CSXT covers the time period from February 2005 through May 2007 for shipments from West Lake Charles and Bayport and from April 2005 through May 2007 for shipments from Canada. NS based both its contract damages and tariff damages calculations on actual data for the February 2005 through January 2006 time period and forecasted damage calculations for February 2006 through May 2007.

I have reviewed NS's forecasted contract damages and tariff damages calculations and have several criticisms. However, since NS has provided no explanation of how it developed its forecasted damages, I can not offer specific criticisms on some of the components because I do not know how they were developed.

1. Contract Damages

For the entire February 2006 through May 2007 time period, NS applied the January 2006 average damages per car amount of \$1,236.21, i.e., the last month of actual data, to each month's forecasted shipments lost to CSXT.

NS's development of the shipments in each month during the forecast time period that were lost to CSXT is not clear. As I noted earlier, NS provided no explanation supporting its damage calculations but I have reviewed the formulas contained in its Excel spreadsheet "Basell Feb 2005 Jan 2006 contract damage calc.xls" summarizing how they were calculated. These formulas provide some insight to NS's approach.

NS used a figure of 54.4 cars for their February and March 2006 forecast. This figure is calculated by taking the total cars shipped during the fourth quarter 2005 from the three origins combined (169), subtracting the actual January 2006 shipments (61), multiplying the remainder by 1.0074 and dividing the result by two.^{25/} The end result of this calculation is that the total of actual January 2006 and forecasted February and March 2006 shipments, i.e., first quarter 2006, equals the total number of shipments moving in the fourth quarter of 2005. NS's formula did not explain the logic behind these calculations or the meaning and development of the 1.0074 factor.

For the April 2006 through May 2007 forecasted period, NS used a figure of 57 cars per month. The NS provided equation demonstrated that this value was calculated by taking the total fourth quarter 2005 shipments (169) times 1.0074 and then divided by three.^{26/} NS's formula did not explain the logic behind these calculations or the meaning and development of the 1.0074 factor.

2. Tariff Damages

NS used the same methodology to develop forecasted carloads for February 2006 through May 2007 as described above in their tariff damages calculations.

For tariff damages during the February 2006 through May 2007 time period, NS applied the January 2006 average damages per car amount of \$4,580.31, i.e, the last month of actual data to each month's forecasted shipments lost to CSXT.

^{25/} $(54 + 65 + 50 - 61) \times 1.0074 \div 2 = 54.3996.$

^{26/} $(54 + 65 + 50) \times 1.0074 \div 3 = 56.7502.$

I. **DAMAGES**

NS claims that Basell owes NS \$2.5 million under NS's contract damages calculations and \$7.6 million under NS's tariff damages calculations for shipments lost to CSXT.

In the event there is a contract, I have demonstrated that NS has overstated both its contract damages and tariff damages calculations for several reasons. Specifically:

1. NS has overstated the number of shipments lost to CSXT;
2. NS has overstated the revenue for the shipments lost to CSXT in its tariff damages calculations by using the tariff rates rather than the contract rates;
3. NS has failed to apply the 95% Rule which impacts Basell's volume commitment and reduces the number of shipments subject to damages;
4. NS has failed to apply the 100-Mile Rule which reduces the shipments that would be subject to movement under the contract;
5. NS has failed to reflect that if a contract does exist as described above, NS owes Basell for overcharges made on traffic retained by NS where NS charged the higher tariff rate rather than the contract rate; and
6. NS's damage calculations were based on numerous unsupported components for each shipment lost to CSXT such as revenues, costs, routes, miles and expansion factors.

For the above specified reasons, NS's damage calculations are unreliable.

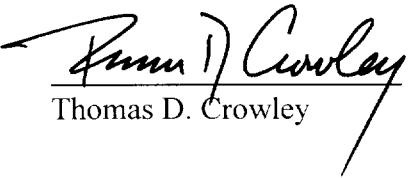
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V. CONCLUSIONS

Based on the analysis summarized above and in the attached exhibits and supporting workpapers, I conclude that NS owes Basell a net amount of \$5.2 million in damages. This calculation is based on the assumption that NS proves that a contract exists. This \$5.2 million damages value consists of two parts. First, based on NS shipments lost to CSXT damages Basell owes NS equal \$2.2 million. Second, based on shipments retained by NS for which NS charged Basell a tariff rate that was higher than the contract rate, NS owes Basell \$7.4 million.

I have also calculated the damages Basell owes NS based on NS's damages theory, i.e., shipments covering West Lake Charles rail direct and TBT traffic and Bayport and Canadian TBT traffic. Under NS's theory, Basell owes NS \$929,524.

This Report is signed on the 17th day of April, 2006.



Thomas D. Crowley

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LIST OF EXHIBITS

<u>EXHIBIT NO.</u> (1)	<u>EXHIBIT DESCRIPTION</u> (2)
1	Statement of Qualifications
1 - Attachment A	Summary of Testimony Of Thomas D. Crowley Over Previous Four Year Period
1 - Attachment B	Summary of Publications Of Thomas D. Crowley Over Previous Ten Year Period
1 - Attachment C	Compensation For Study And Testimony
2	Summary Of Documents Considered In Developing This Report
3	Study Assumptions Relied Upon to Calculate Basell's Damages
4	Comparison Of Basell And NS Damage Calculations -- 2/05 through 5/07
5	Demonstration Of Basell Damage Calculations Incorporating the 100-Mile Rule and the 95% Rule For TBT Shipments Lost To CSXT Using West Lake Charles To Atlanta As The Example
6	Demonstration Of Revenue And Variable Cost Calculations Using West Lake Charles, Louisiana To Winchester, Virginia As An Example
7	Summary Of Truckloads Related To NS Shipments Lost To CSXT Moving More Than and Less Than 100 Miles From Origin (Based On February 2005 through March 2006 Actual Data)
8	Development Of Expansion Factors Used In Basell's Damages Calculations

STATEMENT OF QUALIFICATIONS

My name is Thomas D. Crowley. I am an economist and President of the economic consulting firm of L. E. Peabody & Associates, Inc. The firm's offices are located at 1501 Duke Street, Suite 200, Alexandria, Virginia 22314 and 5901 N. Cicero Avenue, Suite 504, Chicago, Illinois 60646.

I am a graduate of the University of Maine from which I obtained a Bachelor of Science degree in Economics. I have also taken graduate courses in transportation at George Washington University in Washington, D.C. I spent three years in the United States Army and since February 1971 have been employed by L. E. Peabody & Associates, Inc.

I am a member of the American Economic Association, the Transportation Research Forum, and the American Railway Engineering and Maintenance-of-Way Association.

The firm of L. E. Peabody & Associates, Inc. specializes in solving economic, marketing and transportation problems. As an economic consultant, I have organized and directed economic studies and prepared reports for railroads, freight forwarders and other carriers, for shippers, for associations and for state governments and other public bodies dealing with transportation and related economic problems. Examples of studies I have participated in include organizing and directing traffic, operational and cost analyses in connection with multiple car movements, unit train operations for coal and other commodities, freight forwarder facilities, TOFC/COFC rail facilities, divisions of through rail rates, operating commuter passenger service, and other studies dealing with markets and the transportation by different modes of various commodities from both eastern and western origins to various destinations in the United States. The nature of these

STATEMENT OF QUALIFICATIONS

studies enabled me to become familiar with the operating practices and accounting procedures utilized by railroads in the normal course of business.

Additionally, I have inspected and studied both railroad terminal and line-haul facilities used in handling various commodities, and in particular unit train coal movements from the Powder River Basin to various utility destinations in the midwestern and western portions of the United States. These operational reviews and studies were used as a basis for the determination of the traffic and operating characteristics for specific movements of coal, both inbound raw materials and outbound paper products to and from paper mills, crude and pelletized iron ore, crushed stone, soda ash, aluminum, fresh fruits and vegetables, TOFC/COFC traffic and numerous other commodities handled by rail.

I have frequently been called upon to develop and coordinate economic and operational studies relative to the acquisition of coal and the rail transportation of coal on behalf of electric utility companies. My responsibilities in these undertakings included the analyses of rail routes, rail operations and an assessment of the relative efficiency and costs of railroad operations over those routes. I have also analyzed and made recommendations regarding the acquisition of railcars according to the specific needs of various coal shippers. The results of these analyses have been employed in order to assist shippers in the development and negotiation of rail transportation contracts which optimize operational efficiency and cost effectiveness.

Moreover, I have developed numerous variable cost calculations utilizing the various formulas employed by the ICC/STB for the development of variable costs for common carriers, with

STATEMENT OF QUALIFICATIONS

particular emphasis on the basis and use of Rail Form A and its replacement costing formula the Uniform Railroad Costing System ("URCS"). I have utilized Rail Form A/URCS costing principles since the beginning of my career with L. E. Peabody & Associates Inc. in 1971.

I have frequently presented both oral and written testimony before the Interstate Commerce Commission, Surface Transportation Board, Federal Energy Regulatory Commission, Railroad Accounting Principles Board, Postal Rate Commission and numerous state regulatory commissions, federal courts and state courts. This testimony was generally related to the development of variable cost of service calculations, rail traffic and operating patterns, fuel supply economics, contract interpretations, economic principles concerning the maximum level of rates, implementation of maximum rate principles, and calculation of reparations or damages, including interest. I presented testimony before the Congress of the United States, Committee on Transportation and Infrastructure on the status of rail competition in the western United States. I have also presented testimony in a number of court and arbitration proceedings concerning the level of rates, rate adjustment procedures, rail operating procedures and other economic components of specific contracts.

Since the implementation of the Staggers Rail Act of 1980, which clarified that rail carriers could enter into transportation contracts with shippers, I have been actively involved in negotiating transportation contracts on behalf of coal shippers. Specifically, I have advised utilities concerning coal transportation rates based on market conditions and carrier competition,

STATEMENT OF QUALIFICATIONS

movement specific service commitments, specific cost-based rate adjustment provisions, contract reopeners that recognize changes in productivity and cost-based ancillary charges.

I have been actively engaged in negotiating coal supply contracts for various users throughout the United States. In addition, I have analyzed the economic impact of buying out, brokering, and modifying existing coal supply agreements. My coal supply assignments have encompassed analyzing alternative coals to determine the impact on the delivered price of operating and maintenance costs, unloading costs, shrinkage factor and by-product savings.

I have developed different economic analyses for over sixty (60) electric utility companies located in all parts of the United States, and for major associations, including American Paper Institute, American Petroleum Institute, Chemical Manufacturers Association, Coal Exporters Association, Edison Electric Institute, Mail Order Association of America, National Coal Association, National Industrial Transportation League, North America Freight Car Association, the Fertilizer Institute and Western Coal Traffic League. In addition, I have assisted numerous government agencies, major industries and major railroad companies in solving various economic problems.

In the two Western rail mergers that resulted in the creation of BNSF Railway Company and Union Pacific Railroad Company and in the acquisition of Conrail by NS and CSX Transportation, Inc., I reviewed the railroads' applications including their supporting traffic, cost and operating data and provided detailed evidence supporting requests for conditions designed to maintain the competitive rail environment that existed before the proposed mergers and acquisition. In these

STATEMENT OF QUALIFICATIONS

proceedings, I represented shipper interests, including plastic, chemical, coal, paper and steel shippers.

I have participated in various proceedings involved with the division of through rail rates. For example, I participated in ICC Docket No. 35585, *Akron, Canton & Youngstown Railroad Company, et al. v. Aberdeen and Rockfish Railroad Company, et al.* which was a complaint filed by the northern and midwestern rail lines to change the primary north-south divisions. I was personally involved in all traffic, operating and cost aspects of this proceeding on behalf of the northern and midwestern rail lines. I was the lead witness on behalf of the Long Island Rail Road in ICC Docket No. 36874, *Notice of Intent to File Division Complaint by the Long Island Rail Road Company.*

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**SUMMARY OF TESTIMONY OF THOMAS D. CROWLEY
 OVER PREVIOUS FOUR YEAR PERIOD**

<u>Proceeding</u>	<u>Title</u>	<u>Date</u>
(1)	(2)	(3)
STB Docket No. 42057	Public Service Company of Colorado D/B/A Xcel Energy v. The Burlington Northern and Santa Fe Railway Company	1/10/03
STB Docket No. 42057	Public Service Company of Colorado D/B/A Xcel Energy v. The Burlington Northern and Santa Fe Railway Company	4/4/03
STB Docket No. 42071	Otter Tail Power Company v. BNSF Railway Company	4/25/03
Cause No. PUD 200300226	Application of Oklahoma Gas and Electric Company for Declaratory Order of the Oklahoma Corporation Commission Determining Applicant's Compliance with Order No. 470044 Issued in Cause No. PUD 200100455 With Respect to Competitive Bidding for Natural Gas Transportation Service	4/29/03
STB Docket No. 42057	Public Service Company of Colorado D/B/A Xcel Energy v. The Burlington Northern and Santa Fe Railway Company	5/19/03
STB Docket No. 42054	PPL Montana, LLC v. The Burlington Northern and Santa Fe Railway Company	5/28/03
STB Docket No. 42071	Otter Tail Power Company v. BNSF Railway Company	6/13/03
STB Docket No. 42058	Arizona Electric Power Cooperative, Inc. v. The Burlington Northern and Santa Fe Railway Company and Union Pacific Railroad Company	7/3/03
STB Docket No. 42054	PPL Montana, LLC v. The Burlington Northern and Santa Fe Railway Company	8/6/03
STB Docket No. 42069	Duke Energy Corporation v. Northern Southern Railway Company	10/24/03
STB Docket No. 42069	Duke Energy Corporation v. Northern Southern Railway Company	10/31/03

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**SUMMARY OF TESTIMONY OF THOMAS D. CROWLEY
OVER PREVIOUS FOUR YEAR PERIOD**

Proceeding (1)	Title (2)	Date (3)
STB Docket No. 42072	Carolina Power & Light Company v. Norfolk Southern Railway Company	11/24/03
STB Docket No. 42072	Carolina Power & Light Company v. Norfolk Southern Railway Company	12/2/03
STB Docket No. 42070	Duke Energy Corporation v. CSX Transportation, Inc.	1/5/04
STB Docket No. 42071	Otter Tail Power Company v. BNSF Railway Company	1/9/04
STB Docket No. 42070	Duke Energy Corporation v. CSX Transportation, Inc.	1/12/04
STB Docket No. 41185 (Reopened)	Arizona Public Service Company & PacifiCorp v. The Burlington Northern and Santa Fe Railway Company	2/27/04
STB Docket No. 41191 (Sub-No.1)	AEP Texas North Company v. BNSF Railway Company	3/1/04
STB Docket No. 42058	Arizona Electric Power Cooperative, Inc. v. The Burlington Northern and Santa Fe Railway Company and Union Pacific Railroad Company	4/2/04
STB Docket No. 41185 (Reopened)	Arizona Public Service Company & PacifiCorp v. The Burlington Northern and Santa Fe Railway Company	4/27/04
STB Docket No. 42071	Otter Tail Power Company v. BNSF Railway Company	4/29/04
STB Docket No. 41191 (Sub-No.1)	AEP Texas North Company v. BNSF Railway Company	7/27/04
Cause No. PUD 200300226	Application of Oklahoma Gas and Electric Company for Declaratory Order of the Oklahoma Corporation Commission Determining Applicant's Compliance with Order No. 470044 Issued in Cause No. PUD 200100455 With Respect to Competitive Bidding for Natural Gas Transportation Service	8/16/04

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**SUMMARY OF TESTIMONY OF THOMAS D. CROWLEY
OVER PREVIOUS FOUR YEAR PERIOD**

Proceeding (1)	Title (2)	Date (3)
Cause No. PUD 200300226	Application of Oklahoma Gas and Electric Company for Declaratory Order of the Oklahoma Corporation Commission Determining Applicant's Compliance with Order No. 470044 Issued in Cause No. PUD 200100455 With Respect to Competitive Bidding for Natural Gas Transportation Service	9/16/04 and 9/22/04
STB Docket No. 41191 (Sub-No.1)	AEP Texas North Company v. BNSF Railway Company	11/8/04
STB Docket No. 42071	Otter Tail Power Company v. BNSF Railway Company	3/1/05
STB Docket No. 42071	Otter Tail Power Company v. BNSF Railway Company	4/4/05
STB Docket No. 42088	Western Fuels Association, Inc. and Basin Electric Power Cooperative v. BNSF Railway Company	4/19/05
STB Docket No. 42088	Western Fuels Association, Inc. and Basin Electric Power Cooperative v. BNSF Railway Company	7/20/05
STB Docket No. 42060 (Sub-No. 1)	North America Freight Car Association, et al. v. BNSF Railway Company	7/29/05
Cause No. W04 CA 369	Twin Oaks Power, L.P. v. Walnut Creek Mining Company	8/11/05
Cause No. W04 CA 369	Twin Oaks Power, L.P. v. Walnut Creek Mining Company	9/8/05
STB Docket No. 42060 (Sub-No. 1)	North America Freight Car Association, et al. v. BNSF Railway Company	11/7/05
STB Docket No. 42088	Western Fuels Association, Inc. and Basin Electric Power Cooperative v. BNSF Railway Company	11/9/05
Arbitration Case	BNSF Railway Company and Public Service Company of Oklahoma Regarding Coal Transportation Agreement ICC-BN-C-2182	12/20/05

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**SUMMARY OF TESTIMONY OF THOMAS D. CROWLEY
OVER PREVIOUS FOUR YEAR PERIOD**

<u>Proceeding</u> (1)	<u>Title</u> (2)	<u>Date</u> (3)
Docket No. 05-116-U	In the Matter of an Investigation Into Entergy Arkansas, Inc's Interim Revision to its Energy Cost Recovery Rider	3/15/06
Case No. C-826373-7	Alameda Belt Line Corporation vs. City of Alameda, et al.	3/22/06

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SUMMARY OF PUBLICATIONS OF THOMAS D. CROWLEY OVER PREVIOUS TEN YEAR PERIOD

<u>Group Presented To</u>	<u>Title/Subject</u>	<u>Date</u>
(1)	(2)	(3)
Association for Transportation Law, Logistics and Policy	"Restructuring Railroads and Changing Regulations: What's a Shipper and Carrier to Do?"	06/25/96
Subcommittee on Railroads of the Committee on Transportation and Infrastructure, House of Representatives, One Hundred Fifth Congress	State of the Railroad Industry	04/22/98
The Surface Transportation Board	The 25 th Anniversary Of The Staggers Rail Act of 1980; A Review and Look Ahead	10/12/05

**Attachment C
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COMPENSATION FOR STUDY AND TESTIMONY

The tabulation below summarizes L. E. Peabody & Associates, Inc.'s hourly billing charges by category of personnel:

Personnel (1)	Hourly Charge (2)		
1. Senior Consultants	\$200	-	\$250
2. Consultants	\$110	-	\$200
3. Analysts	\$60	-	\$110
4. Statistical/Secretarial	\$30	-	\$60

My billing rate equals \$250 per hour. Neither the amount of my compensation nor the timing or terms of its payment are in any way contingent on the outcome of this proceeding.

SUMMARY OF DOCUMENTS CONSIDERED IN DEVELOPING THIS REPORT

1. NS Bates Numbers NS 1 – NS 161; NS 1924 – NS 1987; NS 3355 – NS 3375; NS 4000 – NS 4998
2. Excel spreadsheet “Basell NS TBT Tariff Profit Highly Confidential.XLS”
3. Excel spreadsheet “Basell NS TBT Contract Profit Loss Highly Confidential.XLS”
4. Excel spreadsheet “NS1849 – Copy of bulkmatic for basel.XLS”
5. Excel spreadsheet “NS1849 – Copy of blue flash for basell.XLS”
6. Excel spreadsheet “NS1849 – Copy of Basell Totals by Lane and Month.XLS”
7. Electronic file “Howard 3-10-06 re NS \$2-5 Million Demand.PDF”
8. Electronic file “Howard 2-24-06 re NS Claimed Damages for Mediation.PDF”
9. Excel spreadsheet “Basell NS data Feb 2005-Jan2006 tariff damage calc.XLS”
10. Excel spreadsheet “Basell Feb 2005 Jan 2006 contract damage calc.XLS”
11. Basell Bates Numbers BAS 1 – BAS 64; BAS 6995 – BAS 7441
12. Excel spreadsheet “Ns data csxt 2-1-02 to 1-31-05.XLS”
13. Excel spreadsheet “Basell CSX Data 2-1-02 to 1-31-05.XLS”
14. Excel spreadsheet “Basell Bulk Truck Data 2-1-05 to 3-30-06.XLS”
15. Excel spreadsheet “Basell NS data Feb 2005-Jan2006.XLS”
16. Excel spreadsheet “Ns data feb2005-jan2006 (UPDATED SJJ 2-26-06).XLS”
17. Excel spreadsheet “ANRI-BLFE BOB.XLS”
18. Excel spreadsheet “Ns Data 2002-Jan3105.XLS”
19. Excel spreadsheet “Ns Data feb2005-oct2005.XLS”
20. Blue Flash Excel spreadsheet “Blue Flash Spreadsheet Basell NS Shipments 2004 2005.XLS”
21. PC Miler|Rail Version 10.0

SUMMARY OF DOCUMENTS CONSIDERED IN DEVELOPING THIS REPORT

22. www.basell.com
23. www.nscorp.com
24. 4Q2004 and 4Q2005 NS Quarterly Financial Reviews
25. NS Fuel Surcharge
26. NS Tariff NSRQ 4334
27. NS Tariff NSRQ 64804.001-B-00
28. NS Tariff NSRQ 64804.002-B-00
29. NS Tariff NSRQ 64700.001-B-00
30. NS Tariff NSRQ 64700.002-A-00
31. UP Tariff 4283-A
32. UP Tariff 4282-D
33. NS 2004 Uniform Rail Costing System Phase III Costs
34. The Official Railway Guide – May/June 2006 edition, Pages B14 – B16, C29, C41, C51, C59, C80, C83 – C85, C88, C108 – C109
35. Standard Transportation Commodity Code Tariff STCC 6001-W, Page 763
36. The Official Railway Equipment Register - January 2006 edition, Page PC-59

STUDY ASSUMPTIONS RELIED UPON TO CALCULATE BASELL'S DAMAGES

1. Basell traffic and revenue database includes the following shipments:
 - a. Bayport shipment data from 2/1/2005 to 1/31/2006.
 - b. Sarnia shipment data from 4/1/2005 to 1/31/2006.
 - c. Varennes shipment data from 4/1/2005 to 1/31/2006.
 - d. West Lake Charles shipment data from 2/1/2005 to 1/31/2006.
2. PC Miler|Rail v10 utilized to determine the rail mileage for the Norfolk Southern Railroad ("NS") segment of each origin to destination ("O/D") movement.
3. For movements that did not involve CSX Transportation, Inc. ("CSXT"), there were no changes to routing.
4. For movements involving CSXT, (switched from NS), hypothetical NS routes were determined based on the following rules:
 - a. If the originating carrier and interchange point remain the same, the historical route to destination is substituted after the interchange point.
 - b. For each movement where the originating carrier has changed, an interchange point between the new originating carrier and NS is assigned based on either:
 - (i) the preponderance of tonnage originating from the movement plant on that carrier to the destination state (based on aggregate movement data with priority given to data on shipments after February 2005); or
 - (ii) the closest interchange point with NS on the originating railroad to origin the plant.
5. L. E. Peabody and Associates, Inc. assigned a "Competitive" or "Captive" designation to each unique destination shipment.
 - a. Competitive - A competitive destination is a destination that is served directly by NS, directly by another Class I railroad or indirectly by another Class I railroad via a short line railroad.
 - b. Captive - A captive destination is a destination where the destination city shown in the database is served only by only NS.
6. NS contract rates per carload were calculated as follows:
 - a. For shipments made by NS from West Lake Charles, the contract rate equals the rates from Contract BNSF 305125 and are calculated as the total freight less the BNSF rate provided by Basell. See Bates No. NS00060. [NOTE: No damages are applicable to these shipments because NS charged Basell the contract rates - NOT tariff rates - for these shipments].
 - b. For all non-West Lake Charles origins where residual NS contract rate for a specific O/D movement was available from historical NS shipment data that rate was used.
 - (i) For Union Pacific Railroad ("UP")/NS shipments, the contract rate equals the UP contract rate per carload calculated based on a straight mileage prorate subtracted from the total freight rate.

STUDY ASSUMPTIONS RELIED UPON TO CALCULATE BASELL'S DAMAGES

- (ii) For Canadian National Railroad ("CN")/NS shipments, the contract rate equals the CN rate per carload calculated based on a straight mileage prorate (except where actual division was provided - See Bates No. NS00129 to NS00133) subtracted from the total freight rate.
 - (iii) For BNSF Railway ("BNSF")/NS shipments, the contract rate equals the rates for identical NS segments developed in 6.a above.
 - c. For all non -West Lake Charles origins where a residual NS rate was not available from historical NS shipment data NS contract rates were estimates as follows:
 - (i) NS's system average chemical revenue per carload is obtained from each relevant corporate *Quarterly Financial Review*.
 - (ii) A polypropylene multiplier is obtained by comparing the weighted average NS contract revenue/carload from historical shipments with NS's weighted average chemical revenue/carload for that same period.
 - (iii) A base contract rate for a given period is developed by applying the historical polypropylene multiplier to the NS average chemical rate per carload for that period.
 - (iv) For movements that are classified as competitive, the base rate for a given period is multiplied by 90%.
 - (v) For movements that are classified as captive, the base rate for a given period is multiplied by 115%.
 - d. NS fuel surcharge was not included in the contract rates
 - e. Rates were not increased by the RCAF
7. NS Tariff rates for historical shipments from BNSF served origins were calculated as follows:
- a. Based on mileage-based tariff rates published in NSRQ 4334
 - b. NSRQ 4334 tariff rates reflect private car ownership
 - c. Different NSRQ 4334 tariff rates utilized when car weight \geq 200,000 lbs.
 - d. NS fuel surcharge was included in tariff rates
 - e. Rates were not increased by the RCAF on a going forward basis
8. NS Tariff rates for historical shipments from UP served origins were calculated as follows:
- a. Based on UP thought tariff rates per carload for O/D pair published in UP 4283-A times NS share.
 - (i) UP 4283-A tariff rates reflect private car ownership
 - (ii) Different UP 4283-A tariff rates utilized when car weight \geq 200,000 lbs.
 - b. Based on UP tariff rates per hundredweight for O/D pairs published in UP 4282-D times NS share from 6/1/2003 for certain specific routing.
 - (i) Assume that Bayport originated shipments to WORCESTER, MA are in the A YER group
 - (ii) Assume that Bayport originated shipments to NCANTON, OH are in the WADSWORTH group
 - (iii) UP 4282-D tariff rates per hundredweight reflect private car ownership
 - (iv) Different UP 4282-D tariff rates per hundredweight utilized when car weight \geq 190,000 lbs.
 - c. NS fuel surcharge was included in tariff rates
 - d. Rates were not increased by the RCAF on a going forward basis

STUDY ASSUMPTIONS RELIED UPON TO CALCULATE BASELL'S DAMAGES

9. NS Tariff rates for historical shipments from CN served origins were calculated as follows:
 - a. Based on mileage-based NS tariff rates published in NSRQ 64804.001-B-00 (from 7/1/2005) and NSRQ 64700.001-B-00 (before 7/1/2005)
 - (i) NSRQ 64804.001-B-00 and 64700.001-B-00 tariff rates reflect private car ownership
 - (ii) Different NSRQ 64804 and 64700 tariff rates utilized when car weight > 200,000 lbs.
 - b. Based on mileage-based NS tariff rates published in NSRQ 64804.002-B-00 (from 7/1/2005) and NSRQ 64700.002-B-00 (before 7/1/2005) for the following NS destination stations included in the Basell data and included in FSAC 60000-69999:
 - PILOT MOUNTAIN, NC (PILOTMTN)
 - CANANDIAGUA, NY (CANADAIG)
 - COSHOCTON, OH
 - HEBRON, OH
 - JEFFERSON, OH
 - TAYLOR, OH
 - ARDEN, PA
 - (i) NSRQ 64804.001-B-00 and 64700.001-B-00 tariff rates reflect private car ownership
 - (ii) Different NSRQ 64804 and 64700 tariff rates utilized when car weight > 200,000 lbs.
 - c. NS fuel surcharge included
 - d. Rates were not increased by the RCAF
10. L. E. Peabody and Associates, Inc. developed 2004 URCS Phase III NS variable cost per car for each NS car movement.

COMPARISON OF BASELL AND NS DAMAGE CALCULATIONS - 2/05 through 5/07

Shipment Type	Shipment Origin	BASELL Damage Calculations						NS Tariff Damage Calculations ⁸					
		Based on Actual Data			Forecasted ¹			Based on Actual Data			Forecasted ²		
		Carloads Evaluated (1)	Carloads After 100 (2)	Mile Rule (3)	NS Damages (4)	Carloads Damages (5)	NS Damages (6)	Carloads Damages (7)	NS Damages (8)	Carloads Damages (9)	NS Damages (10)	Carloads Damages (11)	NS Damages (12)
A. NS Shipments Lost to CSXT⁴													
Bayport, TX Origin		314	116	109	\$140,911	176	\$222,704	285	\$363,615	316	\$1,484,548	512	\$2,403,726
1. Truck Transfer Shipment ⁵		405	405	353	\$463,536	480	\$636,000	833	\$1,099,526	316	\$1,484,548	512	\$2,403,726
2. Rail Direct Shipment		719	521	462	\$604,467	656	\$888,704	1,118	\$1,463,171	316	\$1,484,548	512	\$2,403,726
3. Subtotal (L1 + L2)													
Canadian Origin Subtotal ⁶													
4. Truck Transfer Shipment ⁵		108	32	28	\$41,747	48	\$67,392	76	\$109,139	108	\$430,740	180	\$716,068
5. Rail Direct Shipment		52	52	28	\$45,238	48	\$73,376	76	\$123,004	108	\$430,740	180	\$716,068
6. Subtotal (L4 + L5)		160	84	56	\$87,375	96	\$144,768	152	\$232,143	108	\$430,740	180	\$716,068
West Lake Charles, LA Origin													
7. Truck Transfer Shipment ⁵		32	2	0	\$0	0	\$0	0	\$0	42	\$204,474	80	\$364,841
8. Rail Direct Shipment		158	158	121	\$185,730	176	\$271,040	297	\$456,770	140	\$724,979	134	\$667,650
9. Subtotal (L7 + L8)		190	160	121	\$185,730	176	\$271,040	297	\$456,770	182	\$929,453	215	\$1,092,492
Total Traffic Lost to CSX													
10. Truck Transfer Shipment ⁵		434	150	137	\$182,658	224	\$290,096	361	\$472,754	466	\$2,119,762	772	\$3,484,636
11. Rail Direct Shipment		615	615	502	\$594,914	704	\$984,416	1,206	\$1,679,330	140	\$724,979	134	\$667,650
12. Subtotal (L10 + L11)		1,069	765	639	\$877,572	928	\$1,274,512	1,567	\$2,152,084	606	\$844,741	907	\$4,192,286
B. Shipments Retained by NS													
Bayport, TX Origin													
13. Truck Transfer Shipment ⁵		134	23	23	(\$60,879)	16	(\$46,512)	39	(\$107,391)	XXX	XXX	XXX	XXX
14. Rail Direct Shipment		496	496	496	(\$1,339,997)	672	(\$1,837,920)	1,168	(\$3,177,917)	XXX	XXX	XXX	XXX
15. Subtotal (L13 + L14)		630	519	519	(\$1,400,876)	688	(\$1,884,432)	1,207	(\$3,285,308)	XXX	XXX	XXX	XXX
Canadian Origin Subtotal ⁶													
16. Truck Transfer Shipment ⁵		52	34	34	(\$107,450)	64	(\$210,544)	98	(\$317,994)	XXX	XXX	XXX	XXX
17. Rail Direct Shipment		332	332	352	(\$451,466)	560	(\$2,360,960)	912	(\$3,812,426)	XXX	XXX	XXX	XXX
18. Subtotal (L16 + L17)		404	386	386	(\$1,558,916)	624	(\$2,571,504)	1,010	(\$4,150,420)	XXX	XXX	XXX	XXX
West Lake Charles, LA Origin													
19. Truck Transfer Shipment ⁵		85	24	24	\$0	32	\$0	56	\$0	XXX	XXX	XXX	XXX
20. Rail Direct Shipment		545	545	545	\$0	688	\$0	1,233	\$0	XXX	XXX	XXX	XXX
21. Subtotal (L19 + L20)		630	569	569	\$0	720	\$0	1,289	\$0	XXX	XXX	XXX	XXX
Total Traffic Lost to CSX													
22. Truck Transfer Shipment ⁵		271	81	81	(\$168,329)	112	(\$257,056)	193	(\$425,385)	XXX	XXX	XXX	XXX
23. Rail Direct Shipment		1,393	1,393	1,393	(\$2,791,463)	1,920	(\$4,198,880)	3,313	(\$6,990,343)	XXX	XXX	XXX	XXX
24. Subtotal (L21 + L22)		1,664	1,474	1,474	(\$2,959,792)	2,032	(\$4,455,936)	3,506	(\$7,415,728)	XXX	XXX	XXX	XXX
C. Total Net Damages ⁷		2,733	2,239	2,113	(\$2,082,220)	2,960	(\$3,181,424)	5,073	(\$5,263,644)	606	\$2,844,741	907	\$4,152,286

¹ Exhibit No. 8 to this Report² Column (4) + Column (6) and Column (5) + Column (7)³ For NS shipments lost to CSX, damages equal NS contract rate minus NS variable cost of service. For shipments retained by NS, damages equal NS tariff rate minus NS contract rate.⁴ Represents damages on shipments from 2/1/2005 through 1/31/2006 that were shifted from NS to CSX.⁵ Any shipment destined for a city with an NS TBT terminal was categorized as a Truck Transfer Shipment. These cities include Atlanta, GA; Charlotte, NC; Chattanooga, TN; Columbus, OH; Edgemere, DE; Euclid, OH; Jersey City and Paterson, NJ; Richmond, VA; and Winston-Salem, NC.⁶ The Canadian Origin Subtotal summarizes the shipments and amounts shown for Sarnia, ON and Varennes, PQ.⁷ Line 12 + Line 24⁸ NS Damages reflect the revised NS Damage amounts provided to L. E. Peabody and Associates, Inc. on April 14, 2006.

COMPARISON OF BASELL AND NS DAMAGE CALCULATIONS - 2/05 through 5/07

Shipment Type	Shipment Origin	BASELL Damages Calculations						NS Contract Damage Calculations					
		Based on Actual Data			Forecasted 1/			Based on Actual Data			Forecasted		
		Carloads	Carloads After 100 Mile Rule	9% Rule	NS	Carloads	Damages 3/	Carloads	NS	Carloads	NS	Carloads	Damages
A. NS Shipments Lost to CSXT 4/		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(15)
Bayport, TX Origin													
1. Truck Transfer Shipment 5/		314	116	109	\$140,911	176	\$222,704	285	\$363,615	316	\$370,756	512	\$945,877
2. Rail Direct Shipment		405	405	353	\$163,536	480	\$366,000	833	\$1,099,536	xxx	\$370,756	512	\$945,877
3. Subtotal (L1 + L2)		719	521	462	\$504,467	656	\$388,704	1,118	\$1,163,171	316	\$370,756	512	\$945,877
Canadian Origin Subtotal 6/													
4. Truck Transfer Shipment 5/		108	32	28	\$41,747	48	\$67,392	76	\$109,139	108	\$234,592	180	\$335,050
5. Rail Direct Shipment		52	52	28	\$45,628	48	\$77,376	76	\$123,004	xxx	\$335,050	xxx	\$369,642
6. Subtotal (L4 + L5)		160	84	56	\$87,375	96	\$144,768	152	\$232,143	108	\$234,592	180	\$335,050
West Lake Charles, LA Origin													
7. Truck Transfer Shipment 5/		32	2	0	\$0	0	0	0	\$0	42	\$31,390	80	\$47,009
8. Rail Direct Shipment		158	158	121	\$85,730	176	\$271,040	297	\$456,770	140	\$170,680	134	\$163,511
9. Subtotal (L7 + L8)		190	160	121	\$85,730	176	\$271,040	297	\$456,770	182	\$202,070	215	\$210,520
Total Traffic Lost to CSX													
10. Truck Transfer Shipment 5/		454	150	137	\$182,658	224	\$290,096	361	\$472,754	466	\$636,738	772	\$957,181
11. Rail Direct Shipment		615	615	502	\$694,014	704	\$984,416	1,206	\$1,679,330	140	\$170,680	134	\$163,511
12. Subtotal (L10 + L11)		1,069	765	639	\$877,572	928	\$1,274,512	1,567	\$2,152,084	606	\$807,418	907	\$1,120,691
B. Shipments Retained by NS													
Bayport, TX Origin													
13. Truck Transfer Shipment 5/		134	23	23	(\$60,879)	16	(\$46,512)	39	(\$107,391)	xxx	xxx	xxx	xxx
14. Rail Direct Shipment		496	496	406	(\$1,339,997)	672	(\$1,837,920)	1,168	(\$3,177,917)	xxx	xxx	xxx	xxx
15. Subtotal (L13 + L14)		630	519	519	(\$1,400,876)	688	(\$1,884,332)	1,207	(\$3,285,308)	xxx	xxx	xxx	xxx
Canadian Origin Subtotal 6/													
16. Truck Transfer Shipment 5/		52	34	34	(\$107,450)	64	(\$210,544)	98	(\$317,994)	xxx	xxx	xxx	xxx
17. Rail Direct Shipment		352	352	352	(\$1,451,466)	560	(\$3,360,960)	912	(\$3,812,426)	xxx	xxx	xxx	xxx
18. Subtotal (L16 + L17)		404	386	386	(\$1,558,916)	624	(\$2,571,504)	1,010	(\$4,130,420)	xxx	xxx	xxx	xxx
West Lake Charles, LA Origin													
19. Truck Transfer Shipment 5/		85	24	24	\$0	32	\$0	56	\$0	xxx	xxx	xxx	xxx
20. Rail Direct Shipment		545	545	545	\$0	688	\$0	1,233	\$0	xxx	xxx	xxx	xxx
21. Subtotal (L19 + L20)		630	569	569	\$0	720	\$0	1,289	\$0	xxx	xxx	xxx	xxx
Total Traffic Lost to CSX													
22. Truck Transfer Shipment 5/		271	81	81	(\$168,329)	112	(\$257,056)	193	(\$425,385)	xxx	xxx	xxx	xxx
23. Rail Direct Shipment		1,393	1,393	1,393	(\$279,463)	1,920	(\$1,198,880)	3,313	(\$6,990,343)	xxx	xxx	xxx	xxx
24. Subtotal (L21 + L22)		1,664	1,474	1,474	(\$2,959,792)	2,032	(\$4,455,936)	3,506	(\$7,415,728)	xxx	xxx	xxx	xxx
C. Total Net Damages 7/		2,733	2,239	2,113	(\$2,082,220)	2,960	(\$3,181,424)	5,073	(\$5,263,644)	606	\$807,418	907	\$1,120,691

1/ Exhibit No. 8 to this Report

2/ Column (4) + Column (6) and Column (5) + Column (7)

3/ For shipments lost to CSX, damages equal NS contract rate minus NS variable cost of service. For shipments retained by NS, damages equal NS tariff rate minus NS contract rate

4/ Represents damages on shipments from 2/1/2005 through 1/31/2006 that were shifted from NS to CSX

5/ Any shipment destined for a city with an NS TBT terminal was categorized as a Truck Transfer Shipment. These cities include Atlanta, GA; Charlotte, NC; Chattanooga, TN; Columbus, OH; Edgemore, DE; Euclid, OH; Jersey City and Paterson, NJ; Richmond, VA; and Winston-Salem, NC.

6/ The Canadian Origin Subtotal summarizes the shipments and amounts shown for Sarnia, ON and Varennes, PQ

7/ Line 12 + Line 24

8/ NS Damages reflect the revised NS Damage amounts provided to L. E. Peabody and Associates, Inc. on April 14, 2006.

DEMONSTRATION OF BASELL DAMAGE CALCULATIONS
INCORPORATING THE 100-MILE RULE AND THE 95% RULE FOR TBT
SHIPMENTS LOST TO CSXT USING WEST LAKE CHARLES TO ATLANTA AS THE EXAMPLE

	Origin City	Destination City	Number Of Shipments	NS Revenues	NS Cost	Damages 1/ (6)
	(1)	(2)	(3)	(4)	(5)	
1.	WLAKCHARL	ATLANTA	1	\$2,817	\$898	\$1,918
2.	WLAKCHARL	ATLANTA	1	\$2,817	\$898	\$1,918
3.	WLAKCHARL	ATLANTA	1	\$2,817	\$898	\$1,918
4.	WLAKCHARL	ATLANTA	1	\$2,817	\$898	\$1,918
5.	WLAKCHARL	ATLANTA	1	\$2,817	\$898	\$1,918
6.	WLAKCHARL	ATLANTA	1	\$2,817	\$898	\$1,918
7.	WLAKCHARL	ATLANTA	1	\$2,817	\$898	\$1,918
8.	WLAKCHARL	ATLANTA	1	\$2,817	\$898	\$1,918
9.	WLAKCHARL	ATLANTA	1	\$2,817	\$898	\$1,918
10.	WLAKCHARL	ATLANTA	1	\$2,817	\$898	\$1,918
11.	WLAKCHARL	ATLANTA	1	\$2,817	\$898	\$1,918
12.	WLAKCHARL	ATLANTA	1	\$2,570	\$898	\$1,671
13.	WLAKCHARL	ATLANTA	1	\$2,570	\$898	\$1,671
14.	WLAKCHARL	ATLANTA	1	\$2,570	\$898	\$1,671
15.	WLAKCHARL	ATLANTA	1	\$2,570	\$898	\$1,671
16.	WLAKCHARL	ATLANTA	1	\$2,570	\$898	\$1,671
17.	WLAKCHARL	ATLANTA	1	\$2,570	\$898	\$1,671
18.	WLAKCHARL	ATLANTA	1	\$2,570	\$898	\$1,671
19.	WLAKCHARL	ATLANTA	1	\$2,570	\$898	\$1,671
20.	WLAKCHARL	ATLANTA	1	\$2,570	\$898	\$1,671
21.	WLAKCHARL	ATLANTA	1	\$2,744	\$898	\$1,846
22.	WLAKCHARL	ATLANTA	1	\$2,744	\$898	\$1,846
23.	WLAKCHARL	ATLANTA	1	\$2,744	\$898	\$1,846
24.	WLAKCHARL	ATLANTA	1	\$2,744	\$898	\$1,846
25.	WLAKCHARL	ATLANTA	1	\$2,744	\$898	\$1,846
26.	WLAKCHARL	ATLANTA	1	\$2,744	\$898	\$1,846
27.	WLAKCHARL	ATLANTA	1	\$2,817	\$898	\$1,918
28.	WLAKCHARL	ATLANTA	1	<u>\$2,817</u>	<u>\$898</u>	<u>\$1,918</u>
29.	Total Atlanta (Sum of L1 - L28)		28	\$76,209	\$25,154	\$51,055
30.	After Application of 100-mile rule (3.6%) 2/		2	xxx	xxx	\$1,838
31.	After Application of 95% Rule 3/		0	xxx	xxx	\$0

1/ Column (4) minus Column (5)

2/ From Exhibit No. 7 to this Report -- Line 29 x 0.036 (rounded-up)

3/ Line 30 x 0.0%. None of the TBT shipments lost to CSXT that originated at West Lake Charles are included in the damage calculations because NS retained 95% of the total TBT shipments from West Lake Charles. After application of the 100 Mile Rule to West Lake Charles TBT shipments, the carloads are reduced from 117 to 26 carloads. Basell's commitment to NS under the alleged contract is for 95% of these carloads or 24 carloads (26 carloads x 95% = 24 carloads). NS did retain 24 carloads from West Lake Charles and therefore Basell fulfilled the alleged contract obligation. See Exhibit No. 4 to this Report for actual TBT carloads from West Lake Charles.

Exhibit No. 6
Page 1 of 1

**Demonstration Of Revenue And Variable Cost Calculations Using
 West Lake Charles, Louisiana to Winchester, Virginia As An Example**

<u>Item</u>	<u>Source</u>	<u>Amount</u>
(1)	(2)	(3)

A. REVENUES

1. Total Contract Freight Charges	Basell Movement Record 1/	\$4,063
2. BNSF Revenue (To ESTL)	Provided by Basell 2/	1,311
3. NS Revenue (From ESTL)	Line 1 - Line 2	\$2,752

B. VARIABLE COSTS

4. NS Line Haul Miles (ESTL to Winchester, VA)	PC Miler/Rail	1,029.3
5. Shipment Weight (lbs)	Movement Record	192,200
6. Shipment Size (Single Car)	Movement Record	1
7. Car Type	Movement Record	Covered Hopper
8. Commodity STCC For L&D	Movement Record	282
9. Car Ownership	Movement Record	Shipper 3/
10. Total Variable Cost Per Carload	NS 2004 URCS 4/	\$1,624.8

C. DAMAGES

11. Damages	Line 3 - Line 10	\$1,127.2
-------------	------------------	-----------

1/ Represents total contract revenue (BNSF and NS) for movement lost to CSXT.

2/ Represents BNSF division of total contract revenue from West Lake Charles to the NS Gateway at East St. Louis.

3/ Car provided at no cost to the railroads.

4/ NS 2004 URCS Unit Costs applied to parameters in Lines 4 - 9.

**SUMMARY OF TRUCKLOADS RELATED TO NS SHIPMENTS LOST TO
CSXT MOVING MORE THAN AND LESS THAN 100 MILES FROM ORIGIN**

(2/1/2005 to 3/30/2006 Actual Data)

Origin Plant (1)	Truckloads <u>1/</u>				
	Rail Destination / Truckload Origin <u>City</u> (2)		Moving Less Than 100 Miles to <u>Destination</u> (3)	Total (4)	Percent <u>2/</u> (5)
1. Bayport	Atlanta	0	145	0.0%	
2. Bayport	Charlotte	20	414	4.8%	
3. Bayport	Chattanooga	45	67	67.2%	
4. Bayport	Columbus	237	773	30.7%	
5. Bayport	Richmond	379	381	99.5%	
6. Bayport	Winston-Salem	0	336	0.0%	
7. Sarnia	Atlanta	101	163	62.0%	
8. Sarnia	Charlotte	548	849	64.5% <u>3/</u>	
9. Sarnia	Chattanooga	44	132	33.3%	
10. Sarnia	Edge Moor	548	849	64.5% <u>3/</u>	
11. Sarnia	Jersey City	548	849	64.5% <u>3/</u>	
12. Varennes	Atlanta	0	39	0.0%	
13. Varennes	Charlotte	13	165	7.9%	
14. Varennes	Chattanooga	0	69	0.0%	
15. Varennes	Columbus	1	75	1.3%	
16. Varennes	Richmond	863	1,264	68.3% <u>3/</u>	
17. Varennes	Winston-Salem	9	21	42.9%	
18. West Lake Charles	Atlanta	4	112	3.6%	
19. West Lake Charles	Charlotte	0	20	0.0%	
20. West Lake Charles	Chattanooga	0	41	0.0%	
21. West Lake Charles	Columbus	3	126	2.4%	
22. West Lake Charles	Edge Moor	1,107	2,239	49.4% <u>3/</u>	
23. West Lake Charles	Winston-Salem	10	20	50.0%	

1/ Basell Bulk Truck Data 2-1-05 to 3-30-06.xls

2/ Column (3) ÷ Column (4) x 100

3/ Percentage of all shipments from Origin Plant that are trucked within 100 miles of any Truckload Origin shown in the Basell Truck Data.

DEVELOPMENT OF EXPANSION FACTORS USED IN BASELL'S DAMAGES CALCULATIONS
 (Based on NS Shipments Lost to CSX)

Month / Year	West Lake Charles			Bayport			Canadian Origins		
	Damages Per Carload	Number Of Carloads	Total Damages 1/	Damages Per Carload	Number Of Carloads	Total Damages 1/	Damages Per Carload	Number Of Carloads	Total Damages 1/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Actual Data									
1. Feb-05	\$1,500	2	\$3,403	\$1,206	19	\$23,127	\$0	0	\$0
2. Mar-05	\$1,447	11	\$15,316	\$1,246	35	\$43,519	\$0	0	\$0
3. Apr-05	\$1,398	8	\$11,703	\$1,210	36	\$43,459	\$1,354	2	\$3,062
4. May-05	\$1,686	14	\$24,416	\$1,158	25	\$28,476	\$1,355	5	\$6,207
5. Jun-05	\$1,530	7	\$10,541	\$1,158	38	\$43,642	\$1,333	0	\$292
6. Jul-05	\$1,664	11	\$18,967	\$1,366	36	\$49,221	\$1,526	3	\$4,402
7. Aug-05	\$1,541	10	\$15,148	\$1,303	59	\$77,442	\$1,524	3	\$3,887
8. Sep-05	\$1,579	19	\$30,033	\$1,300	28	\$36,237	\$1,529	4	\$5,433
9. Oct-05	\$1,587	9	\$14,489	\$1,318	49	\$64,299	\$1,587	7	\$11,490
10. Nov-05	\$1,601	10	\$15,827	\$1,338	49	\$64,923	\$1,587	10	\$15,867
11. Dec-05	\$1,269	9	\$11,654	\$1,465	42	\$61,031	\$1,703	12	\$20,924
12. Jan-06	\$1,545	9	\$14,233	\$1,473	47	\$69,090	\$1,581	10	\$15,811
13. Avg./Total	\$1,535	121	\$185,730	\$1,308	462	\$604,466	\$1,560	56	\$87,374
Forecasted Data 2/									
14. Feb-06	\$1,540	11	\$16,940	\$1,309	41	\$53,669	\$1,508	6	\$9,048
15. Mar-06	\$1,540	11	\$16,940	\$1,309	41	\$53,669	\$1,508	6	\$9,048
16. Apr-06	\$1,540	11	\$16,940	\$1,309	41	\$53,669	\$1,508	6	\$9,048
17. May-06	\$1,540	11	\$16,940	\$1,309	41	\$53,669	\$1,508	6	\$9,048
18. Jun-06	\$1,540	11	\$16,940	\$1,309	41	\$53,669	\$1,508	6	\$9,048
19. Jul-06	\$1,540	11	\$16,940	\$1,309	41	\$53,669	\$1,508	6	\$9,048
20. Aug-06	\$1,540	11	\$16,940	\$1,309	41	\$53,669	\$1,508	6	\$9,048
21. Sep-06	\$1,540	11	\$16,940	\$1,309	41	\$53,669	\$1,508	6	\$9,048
22. Oct-06	\$1,540	11	\$16,940	\$1,309	41	\$53,669	\$1,508	6	\$9,048
23. Nov-06	\$1,540	11	\$16,940	\$1,309	41	\$53,669	\$1,508	6	\$9,048
24. Dec-06	\$1,540	11	\$16,940	\$1,309	41	\$53,669	\$1,508	6	\$9,048
25. Jan-07	\$1,540	11	\$16,940	\$1,309	41	\$53,669	\$1,508	6	\$9,048
26. Feb-07	\$1,540	11	\$16,940	\$1,309	41	\$53,669	\$1,508	6	\$9,048
27. Mar-07	\$1,540	11	\$16,940	\$1,309	41	\$53,669	\$1,508	6	\$9,048
28. Apr-07	\$1,540	11	\$16,940	\$1,309	41	\$53,669	\$1,508	6	\$9,048
29. May-07	\$1,540	11	\$16,940	\$1,309	41	\$53,669	\$1,508	6	\$9,048
30. Avg./Total	\$1,540	176	\$271,040	\$1,309	656	\$858,704	\$1,508	96	\$144,768

1/ Total Damage amounts shown adjusted to reflect the 100-mile Rule and the 95% Rule.

2/ Each month represents the average of the April 2005 through January 2006 time period. February and March 2005 were eliminated as these were start-up months.

DEVELOPMENT OF EXPANSION FACTORS USED IN BASELL'S DAMAGES CALCULATIONS
 (Based on Shipments Retained by NS)

Month / Year (1)	West Lake Charles			Bayport			Canadian Origins			Total (10)
	Damages Per Carload (2)	Number Of Carloads (3)	Total Damages 1/ (4)	Damages Per Carload (5)	Number Of Carloads (6)	Total Damages 1/ (7)	Damages Per Carload (8)	Number Of Carloads (9)	Damages 1/ (10)	
Actual Data										
1. Feb-05	\$0	57	\$0	(\$1,866)	45	(\$83,417)	\$0	0	\$0	
2. Mar-05	\$0	59	\$0	(\$3,065)	44	(\$134,692)	\$0	0	\$0	
3. Apr-05	\$0	50	\$0	(\$2,428)	50	(\$120,934)	(\$3,541)	59	(\$209,360)	
4. May-05	\$0	33	\$0	(\$3,107)	45	(\$139,803)	(\$3,800)	32	(\$121,787)	
5. Jun-05	\$0	27	\$0	(\$2,972)	36	(\$106,017)	(\$3,672)	30	(\$109,177)	
6. Jul-05	\$0	39	\$0	(\$2,676)	47	(\$125,759)	(\$4,048)	48	(\$195,849)	
7. Aug-05	\$0	60	\$0	(\$2,830)	55	(\$154,706)	(\$3,962)	52	(\$204,845)	
8. Sep-05	\$0	65	\$0	(\$2,692)	49	(\$131,889)	(\$4,060)	53	(\$214,073)	
9. Oct-05	\$0	38	\$0	(\$2,839)	46	(\$130,598)	(\$4,260)	32	(\$136,747)	
10. Nov-05	\$0	40	\$0	(\$2,783)	25	(\$69,581)	(\$4,506)	28	(\$124,785)	
11. Dec-05	\$0	51	\$0	(\$2,170)	28	(\$60,766)	(\$4,804)	25	(\$118,813)	
12. Jan-06	\$0	52	\$0	(\$2,894)	49	(\$142,713)	(\$4,557)	27	(\$123,482)	
13. Avg./Total	\$0	.669	\$0	(\$2,699)	519	(\$1,400,875)	(\$4,039)	386	(\$1,558,916)	
Forecasted Data 2/										
14. Feb-06	\$0	45	\$0	(\$2,739)	43	(\$117,777)	(\$4,121)	39	(\$160,719)	
15. Mar-06	\$0	45	\$0	(\$2,739)	43	(\$117,777)	(\$4,121)	39	(\$160,719)	
16. Apr-06	\$0	45	\$0	(\$2,739)	43	(\$117,777)	(\$4,121)	39	(\$160,719)	
17. May-06	\$0	45	\$0	(\$2,739)	43	(\$117,777)	(\$4,121)	39	(\$160,719)	
18. Jun-06	\$0	45	\$0	(\$2,739)	43	(\$117,777)	(\$4,121)	39	(\$160,719)	
19. Jul-06	\$0	45	\$0	(\$2,739)	43	(\$117,777)	(\$4,121)	39	(\$160,719)	
20. Aug-06	\$0	45	\$0	(\$2,739)	43	(\$117,777)	(\$4,121)	39	(\$160,719)	
21. Sep-06	\$0	45	\$0	(\$2,739)	43	(\$117,777)	(\$4,121)	39	(\$160,719)	
22. Oct-06	\$0	45	\$0	(\$2,739)	43	(\$117,777)	(\$4,121)	39	(\$160,719)	
23. Nov-06	\$0	45	\$0	(\$2,739)	43	(\$117,777)	(\$4,121)	39	(\$160,719)	
24. Dec-06	\$0	45	\$0	(\$2,739)	43	(\$117,777)	(\$4,121)	39	(\$160,719)	
25. Jan-07	\$0	45	\$0	(\$2,739)	43	(\$117,777)	(\$4,121)	39	(\$160,719)	
26. Feb-07	\$0	45	\$0	(\$2,739)	43	(\$117,777)	(\$4,121)	39	(\$160,719)	
27. Mar-07	\$0	45	\$0	(\$2,739)	43	(\$117,777)	(\$4,121)	39	(\$160,719)	
28. Apr-07	\$0	45	\$0	(\$2,739)	43	(\$117,777)	(\$4,121)	39	(\$160,719)	
29. May-07	\$0	45	\$0	(\$2,739)	43	(\$117,777)	(\$4,121)	39	(\$160,719)	
30. Avg./Total	\$0	720	\$0	(\$2,739)	688	(\$1,884,432)	(\$4,121)	624	(\$2,571,504)	

1/ Total Damage amounts shown adjusted to reflect the 100-mile Rule and the 95% Rule.

2/ Each month represents the average of the April 2005 through January 2006 time period. February and March 2005 were eliminated as these were start-up months.

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA**

NORFOLK SOUTHERN RAILWAY COMPANY :	
Three Commercial Place	: CIVIL ACTION
Norfolk, VA 23510	: NO. 05-CV-3419-BMS
	:
Plaintiff,	:
	:
v.	:
	:
BASELL USA INC.	:
912 Appleton Road	:
Elkton, MD 21921	:
	:
<u>Defendant.</u>	:

ORDER

AND NOW this _____ day of _____ 2006 upon consideration of
**PLAINTIFF'S MOTION IN LIMINE TO EXCLUDE EXPERT TESTIMONY
OF THOMAS D. CROWLEY**, and upon determination that said Motion should be
GRANTED,

IT IS HEREBY ORDERED that Thomas D. Crowley shall be precluded from testifying
at the trial of this matter as an expert

By the Court,

J..